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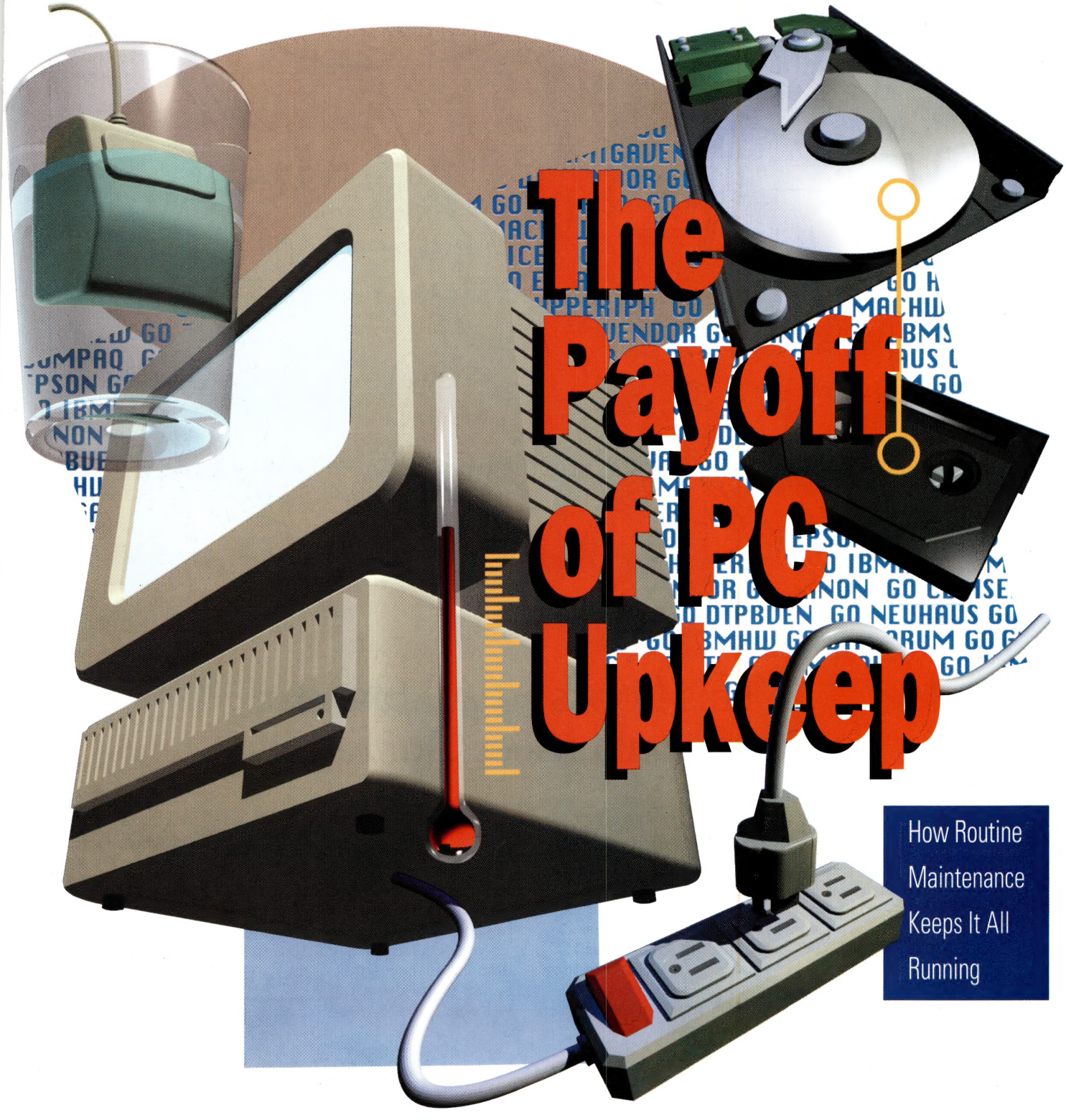
COMPUSERVE MAGAZINE

Choosing a Chip: Pentium, PowerPC or '486–p. 21

Thinking About the 'Inc.'–p. 26

Not Getting Lost in Translation–p. 40



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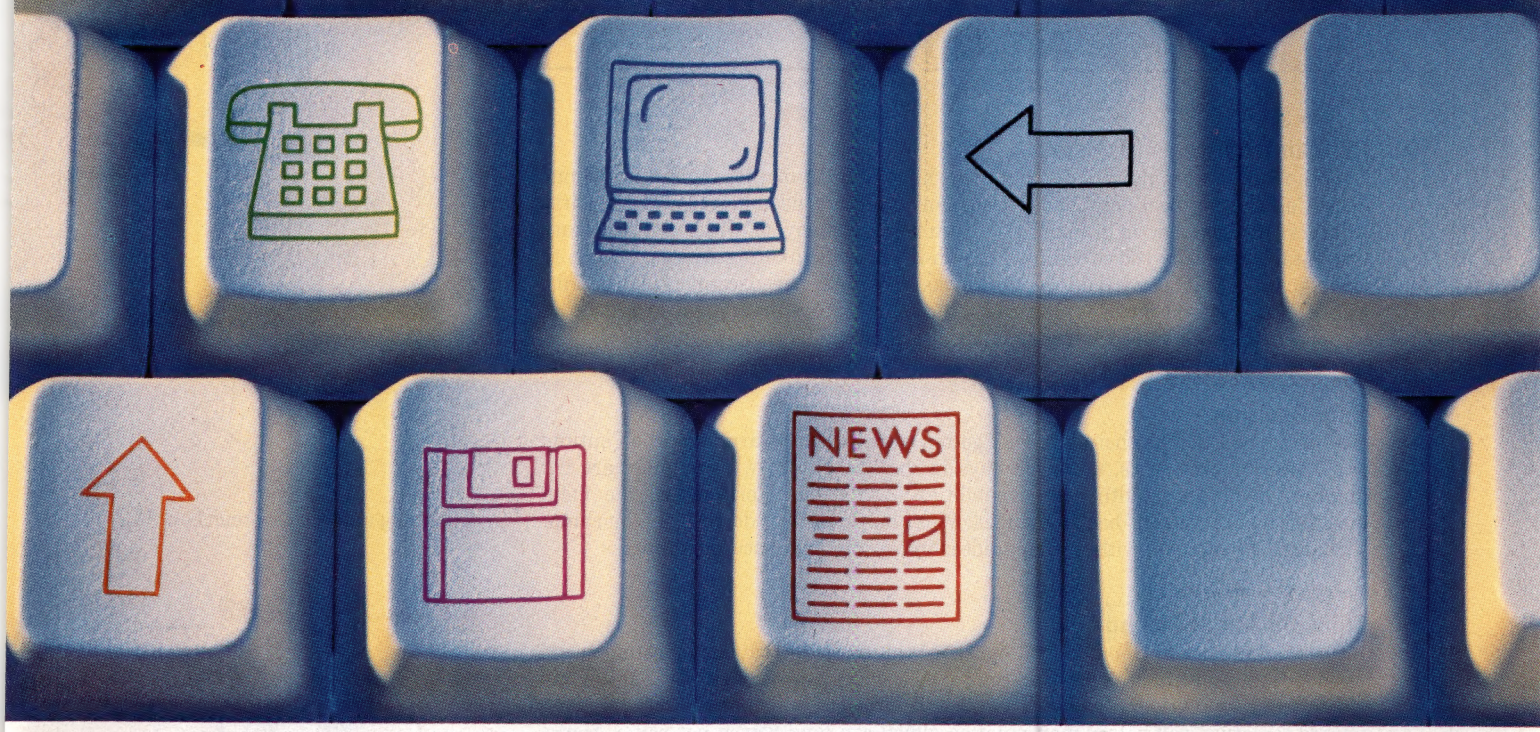

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CONTENTS

FEATURES

Feature Story

10 **PC Maintenance as Mainstay**
There's more to keeping your computer in shape than trying not to drop it off your desk. Calls for hardware assistance with blank monitors, dead hard drives and dirty printers are common in CompuServe forums, yet many of these problems are preventable or easily solved with a little do-it-yourself tinkering. Here's a guide to taking care of your power supply, hard disks, monitors, mice, scanners, keyboards, CD-ROM drives and modems. Plus: Looking after laptops; building a PC; ideas on computer servicing; maintenance uploads; list of online forums.

Computing Services

21 **Chip Decision**
Buying a new PC? The choices haven't gotten easier with the arrival of the Pentium and PowerPC processors, and good buys in the '486 category. Then there are the monitor, RAM and multimedia capabilities to consider. Fortunately, the main question to ask yourself hasn't changed: What am I going to do with the machine? Includes: The problem with '486 upgrades; online info and discussion sources.

Personal Enterprise

26 **Thinking About Inc-ing**
Incorporating your entrepreneurial endeavor can pave the way for investment and provide legal protections, as well as the perception of business legitimacy. But it can also invite new taxes and paperwork, kill the home-office deduction and tempt you toward "creative" self-salary manipulation which can land you in hot water. Here's what you need to consider. Plus: Other types of business structures; online files.

30 **'Making It' Online**: Many small businesses grow and prosper thanks in part to online research and connections—here are five who get ahead by modem.

36 **Clearing the Desks**: For those who can't see the floor, let alone imagine a "paperless office," thoughts are offered on working up a filing system and the nerve to throw the rest of the clutter away.

Random Access

40 **In Other Words**
Online technology bridges the distance between global points, but you'll need a little help closing the language gap that follows. Finding a good translator can help you comprehend and communicate effectively, and maybe even prevent embarrassment. Includes: New extended character support; finding translators online.

44 **Self-Cooked Books**: When they don't want to use a major publisher, author wanna-bes can try self-publishing, which has become less impractical and more respectable.

RANDY VEROUGSTRAETE

System spring cleaning year-round—p. 10

CHRIS PYLE

Choosing a potent processor—p. 21

DEPARTMENTS

3	Dear Reader	48	Downloadable Notables
4	Letters	51	Book Reviews
6	Monitor	58	Readers' Writes
		60	Update: Last-Minute News

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Dear Reader

We've changed the guard at *CompuServe Magazine*. Douglas Branstetter recently became editor of *CompuServe CD*, a multimedia extension of the Information Service. That means he's building and polishing the next new window on CompuServe, combining the online service with CD ROM-based information, sound, graphics and full-motion video.

Doug joined *Online Today* in 1982 as editor, and with his talents and efforts, forged a publication that spoke to the needs of the CompuServe membership. Indeed, in 1990, he transformed *Online Today* into *CompuServe Magazine* and its current wealth of fact-filled articles about the goings-on of the world's leading Information Service. For 12 years, Doug's leadership, insight and creativity contributed to the growth and success of a publication that circulated to less than 50,000 during his first year as editor and now circulates to 1 million.

While Doug's desk is moving to another part of the CompuServe complex, his unique skills will continue to benefit the CompuServe membership. You'll know what that means when you see the exciting and eclectic content of *CompuServe CD*, currently undergoing development and testing. Watch "What's New" for more information.

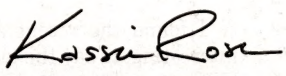
What can you expect from *CompuServe Magazine* with me at the helm? More of the same insight, tips and advice about the Information Service, as in this month's cover story, "Getting Down to PC Upkeep," beginning on Page 10. Here we explain how to maintain modems, monitors, printers, keyboards and other "tough" hardware components so you can prolong their lives and avoid costly repairs. Experts give advice on what to check and clean on a routine basis, while members confess their hardware breakdowns caused by needless neglect. And for the ultimate knowledge of your computer hardware needs, why not do like some and build the computer yourself? Before you plunge your hands into grounding lugs and y-connectors, however, read the sidebar "Micro-Mechanically Inclined? Build a PC" to find out if this is the route you want to take to good hardware health.

* * *

And speaking of hardware concerns, these are the days of chip proliferation, from the Pentium to the DEC Alpha to the PowerPC, not to mention the Pentium-type clones. Those in the market for new computers must decide whether to buy immediately into the unprecedented speed that these new chips offer or wait until the products mature and prices decline. We help buyers think through the issue in "Chip Decision" on Page 21. But the discussion does not end in print. Will Zachmann, chief forum administrator for the Canopus Forum, set up the temporary Message Section 15, "How to Buy a PC," to coincide with this month's article. Stop by to chip away at this buyers' dilemma.

* * *

CompuServe now offers extended character support. That means you can use *real* diacritical marks, such as German umlauts and French cedillas, in your online messages rather than makeshift ones. The move to extended characters is part of CompuServe's ongoing effort to expand the Information Service's capabilities to better serve its worldwide membership. Read "Multiple-Language Support Introduced" on Page 41 for more information.



Kassie Rose
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Letters

Health Caring

As an internist, I read "Care Takers" (February, p.10) with interest. However, I was dismayed by Holistic Health Forum Sysop Skye Lininger's statement that "Holistic methods are as good or better than mainstream medicine." I am aware of no literature to support holistic medicine as an alternative that provides better therapy than medical management in the treatment of common illnesses, such as coronary artery disease. As the article emphasized, the best method of assessing and treating illness is by discussing health care concerns with a physician and undergoing periodic physical examinations.

Christopher G. Acker, M.D.
Frankfurt, Germany

Cathryn Conroy's piece about using health databases ("Online Medical and Health Resources," February, p.18) was very informative. I'm a firm believer that final decisions on health care belong to the patient, and an informed patient can make rational ones.

A recent analysis of educational dermatologic pamphlets revealed that most brochures are written at the 10th grade reading level or higher. Many Americans do not read at the ninth grade level. In light of such statistics, how can an average patient make informed decisions when many can't even balance a checkbook and don't know basic human biology?

Thomas Rosenfeld, M.D.
Worcester, Massachusetts

14.4 Modems

The article "14.4's Speed Bumps" (February, p.20) left out a very important fact. Most internal 14.4 bps modems I have seen interface with a computer via a 16550 UART chip included on the board. But, people who use an external modem probably connect the modem to the standard serial port. (I have yet to see a computer with a 16550 UART chip controlling the I/O.) If you are using a 14.4 external modem and someone with a 14.4 modem sends you data or a fax with data compression, speeds could possibly reach 57,600, too high for your standard serial port. A high-speed serial port with the 16550 UART chip should resolve this problem.

Don Hoffler
Wayne, New Jersey

"14.4's Speed Bumps" recommended the IBM Communications Forum (GO IBMCOM) as the forum where OzCIS is supported. However, the OzCIS Support Forum is now open (GO OZCIS). German-language support is offered in the Ziff PC Pro Forum (GO PCPRO), Section 12, "OzCIS-Treff/OLR."

Ullrich Bauer
Leverkusen, Germany

Buying Computers

In "Words to Purchase By" (February, p.8), Dave Cell states that it is "...better to build your system than buy it." Although I agreed with most of his pointers, I really disagree with that statement, especially for the new computer user/shopper. Building a computer yourself is not as easy as it sounds. Also, it costs the same as, if not more than, buying from a large company that can afford to buy thousands of components per month and pass the savings on to buyers. Though it is true you have "24-hour, seven-day, on-site support" if you build it yourself, it is also true that you'll have to pay for everything and won't have technical support. Even if you buy from a company, you can still play with the guts of your system without voiding a warranty.

Marc Mlyn
Kings Park, New York

Aliens?

The excellent article "A Real Space Case?" (February, p.38) touches on all the related issues, including the alleged coverups by the world's governments for the last 50 years. It takes the imagination of an old soul to grasp that our world is a Cosmic Experiment and that mankind is part and parcel of that endeavor.

The article's closing paragraph about "the arrival of the aliens" reminds me of thoughts I had in the 1950s. It is time that mankind starts to forget about self and begins to think collectively. The spirit of CompuServe and its members ought to be adopted worldwide.

Gerardus Tros
Edmonton, Alberta, Canada

I found the recent article about UFOs interesting, to say the least. The evidence of UFOs is so littered with frauds and fakery that if there *is* any truth to the stories, it is lost in the noise. I doubt there is anything to any of it.

As for Dr. Drake's estimate and the NASA SETI project mentioned in the article, they are undertakings of an entirely different order. The Drake Equation is simply a tool for estimating the number of advanced civilizations that might exist. The SETI program is an attempt to locate radio signals from extraterrestrial species. So far, no signal received has stood up under scrutiny (the first, and perhaps most dramatic, false alarm was probably the discovery of pulsars in 1967).

Chuck Culman
Trooper, Pennsylvania

Object 8-13A, the subject of the Space Forum (GO SPACEFORUM) file 8-13A ("The Online X-Files: UFO and Related Uploads," February, p.40), is a hoax. I don't know who in the UFOlogical community started circulating that story, but it was taken from a satirical fantasy book, *The Extraterrestrial Report*, by Richard Siegel and John H. Butterfield. The passage taken from the book was an alleged article in *The New York Times*.

The story occasionally surfaces in other forms and with other names from various channellers, but the common feature of all versions is that there isn't a shred of evidence for the existence of such an object.

Jim Shaffer Jr.
Montgomery, Pennsylvania

'Joke' Shareware

The article "Fool Your Friends with 'Exploding Cigarware' " (January, p.26) told how to play practical jokes on your neighbor's PC with shareware available on CompuServe. Some of the gags are similar to what common PC viruses do, such as inverting screens and causing characters to fall to the bottom of the screen.

I believe CompuServe has invited its user community to create havoc on unwitting victims of these so-called "gags." It causes PC support groups to chase viruses that don't truly exist. By publishing this article and making the software available, you have done a great disservice to your users and to the businesses that deal with real viruses.

Ed Monahan
New York, New York

Send a Letter

Send your letter to the editor by CompuServe Mail to 76004,3302 and receive a $25 connect credit if it is published. ***We cannot acknowledge letters or answer questions through this User ID.*** Customer Service answers questions via GO FEEDBACK, or in the CompuServe Help Forum (GO HELPFORUM). Or, call Customer Service in the United States at **800-848-8990**; in France, **36 63 81 22**; in Germany, **0130 86 46 43**; or the United Kingdom, **0800 289 458**. GO QUESTIONS for other countries' Customer Service numbers.

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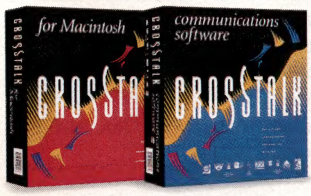

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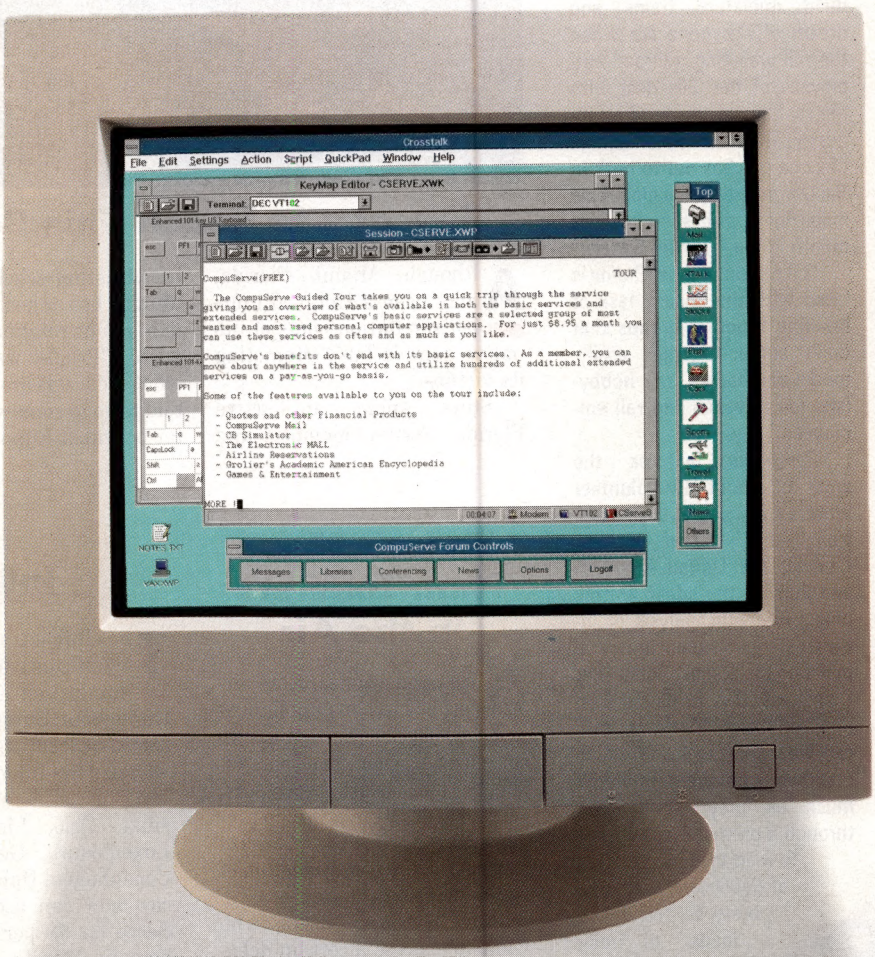

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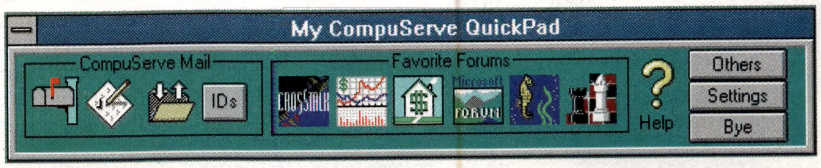

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MONITOR

Rail-Life Stories

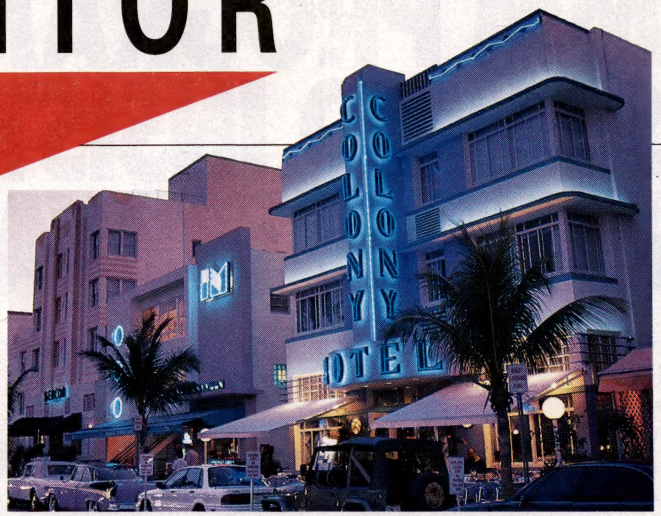
While model railroaders build miniature trains and dream of a bygone era when the rail was king, railroad employees of the '90s deal with the realities of this hard-hit industry. Train buff Peter Kirn of Chicago reaches out to both in *RailOnline*, a 50-page electronic magazine published every month in the TrainNet Forum.

"Like TrainNet, *RailOnline* is faced with the uneasy task of bringing together groups that don't come together easily: model railroaders, rail hobbyists, rail travelers and rail employees," says Kirn.

RailOnline features the work of about 10 volunteer writers and includes train news from the United States, Canada, the United Kingdom and Europe; the latest Amtrak news; in-depth analysis of industry issues and concerns; and news of the largest commuter train lines. Due to its Farallon Replica format, Windows users can view the magazine offline on their computer monitors much as they would look through a printed magazine.

To read the latest edition of *RailOnline*, search Library 2, "New Uploads," of TrainNet (GO TRAINNET) using the keyword RO.

TOM HOGAN



TIM RIBAR/STOCK SOUTH

Reasons to Reach This Beach

Although, Miami, Florida, may have a troubled tourist reputation, one of its native sons is busy promoting its virtues.

Steve Apple, an active Florida Forum member and broadcasting school student in Miami, has taken on this one-man public relations effort with gusto. "People want to know what the locals are doing, not be told to go to some shopping center or watch Flipper stuck in a small tank," he says. "I can provide more of a flavor of the city than citing the regular tourist attractions."

For visitors looking for more than a routine press release from the Chamber of Commerce, Apple recommends such activities as taking a walking tour of South Beach to appreciate the Art Deco building designs and people-watching in the afternoon in the Ocean Drive cafés, which are more relaxed during the days than in the busy evenings.

Apple has compiled his restaurant and activity recommendations into MIAMI.FL and EVENTS.94, in Library 7, "Southeast," of the Florida Forum (GO FLORIDA).

There's More Than Toasters in the Air

Once upon a time, before airborne kitchen appliances were nearly as familiar to computer owners as spreadsheets and word processors, screensavers were a way to prevent display burn-in. Now of course, they're also a medium of self-expression.

For Windows users who want to express a certain debonair *je-ne-sais-quoi*, Library 4, "Screen Savers," in the Windows Fun Forum (GO WINFUN) has several programs that make flying toasters look downright staid. Consider COWS.ZIP, which features demented, mooing bovines and the occasional chicken attached to a balloon. Or the ever-popular BUTTHD.ZIP for fans of MTV's gruesome twosome (heh-heh-heh-heh). And then there's SLUGR.ZIP, starring a slug that covers your screen with a slime trail.

WORLD UPDATE

Infonet Drops Rates

The Infonet network has significantly reduced communication surcharges throughout Europe and other selected locations. Members who use the Infonet-Euro network in cities such as Helsinki, Oslo, Lisbon, Rome, Luxembourg, Geneva, Bern, Copenhagen, Dublin and Moscow now can access CompuServe for $8 per hour. Members in Manila, The Philippines, São Paulo, Brazil and Singapore can access the Infonet-World network for $15 per hour, a discount of 40 percent. GO LOGON for log-on information and GO RATES for pricing information on the Infonet network.

Discuss the latest developments related to United Kingdom data communications, fax and cellular technology in the U.K. Communications Forum (GO UKCOMMS). In addition to general communications topics, support is provided by some of the U.K.'s best-known communications vendors. US Robotics (U.K.), Pace Microtechnologies and Psion Dacom offer modem support; fax and e-mail software publisher Finansa and communications software publisher Datasoft also provide assistance. The forum also includes support sections for WigWam and Tee-Pee, the Windows and DOS-based offline readers from Ashmount Research. Support for noncommunications-related computing topics is provided in the U.K. Computing Forum (GO UKCOMP).

The new ELSA GmbH Forum (GO ELSA) is open, supporting users of ELSA MicroLink modems, MicroLink-ISDN boards and WINNER graphic boards. ELSA representatives answer technical questions in the message sections, and forum libraries contain new driver and software updates, utilities, software and information.

Monitor

Contributors: Cathryn Conroy, John Edwards, Lindsy Van Gelder

The Software Equivalent of a Rental Car

It's every power user's dream: getting a program for free, months before it's released to the general public. But for that lucky group known as "beta-testers," it's a dream come true.

Beta-testers evaluate "beta software"—a nearly complete, almost-ready-to-market product. Depending on the software's complexity and importance, the number of beta-testers involved in an evaluation can range from a few dozen to thousands. In return for the software, the beta-testers are required to put the program through its paces and report on any discovered bugs or usability problems.

"The job of a beta-tester is simple: break the software," says Steve Swope, a veteran beta-tester and member of the IBM Programming Forum (GO IBMPRO). "The point is to put it through as many tests of as many features as possible to see that it behaves as expected."

Testing assignments can be obtained by volunteering to a software publisher, but most experienced beta-testers feel that a more effective approach is to monitor CompuServe's software forums, where publishers routinely seek qualified testers.

Matthew Giles, marketing manager for Marietta, Georgia-based software publisher SemWare Corp., says when it comes to beta-testers, many call but relatively few are chosen. "We look for individuals who will use our program on a daily basis," says Giles, a member of the IBM Applications Forum (GO IBMAPP). "In addition, we hope to have a mix of testers that will allow the program to be tested on many different system configurations."

But as Nico Mak, author of the shareware utility WinZip and a regular in the ASP/Shareware Forum (GO ASPFORUM), points out, *inexperience* is often as good a qualification for beta-testing as software proficiency. "You need inexperienced users to find out what kinds of things they stumble on. Of course, inexperienced testers don't stay that way for long, so you always have to find new ones."

They Like Electronic *and* Chain Mail

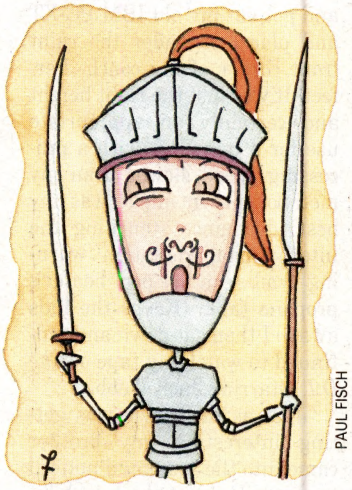
When members talk about "heavy metal" in the Living History Forum (GO LIVING), they don't mean rock music. The forum's Section 9, "Arms and Armour," is home to dedicated enthusiasts who collect—and often wear—ancient arms and armour.

Forum staffer Mark Gist, who specializes in heavyweight apparel and accessories from the late 15th and early 17th centuries, says his goal is to recreate history. "My stockpile includes three matchlock muskets, a wheel lock pistol, back and breast armour, two types of helmets, three types of swords and a halberd (a battle-ax and pike)." Gist, like many fellow forum members, belongs to the Society for Creative Anachronism, an organization that stages "living history" events across the United States.

Member Roger Gray uses his arms and armour collection to augment his living history portrayal of a braggart Elizabethan tavern owner. "I carry a long period blade, generally referred to as a *main gauche*," he says. Gray sees ancient arms as a kind of historical fashion statement. "Weapons were a fact of life during the period and are part of my daily clothing as an Elizabethan," he says.

Member Kevin Connery believes that arms and armour is a pastime that anyone with a sense of history and a desire to collect can get involved in. "But a large, museum-type collection will be expensive, not only in cash but in time spent searching for items," he warns. Gray adds, "Living history is not *Dungeons and Dragons*, nor is it a bunch of geeks drooling over broadswords."

And who would disagree with a braggart tavern owner who carries a *main gauche*?



PAUL FISCH

Happy Modeming Campers

Business travelers who never leave home without pliers and alligator clips know how tough it is to pick up e-mail on the road at hotels with modem-unfriendly phones. But no one has more of a hassle keeping in touch than people who move between campgrounds in recreational vehicles.

Sysop Ed Juge has uploaded a file (CELL2.TXT) to Library 11, "Communications," of the RV Forum (GO RV), with tips for connecting to CompuServe by acoustic coupler, cellular phone, packet-switching message services, and even a new mobile product that gives an on-screen readout about the quality of the phone signal and other details of the phone connection. The forum also has a section dedicated to communication on the road—a must for anyone who logs a lot of miles on the information superhighway, with or without a Winnebago.

Patently Obvious Play

Garage inventors, like garage musicians, often have been rewarded with fame and fortune.

But in this age of federally funded corporate laboratories and million-dollar test benches, is tinkering beside the '73 Maverick still the way to go? The members who meet in the Ideas & Inventions Forum's (GO INNOVATIONS) Section 6, "The Garage Workshop," hope so.

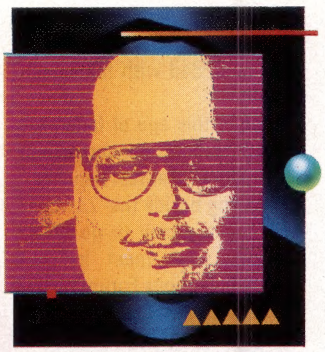
"I'm a garage inventor—except that I work mostly on my living room couch," says member Peter Ruhe, who is developing a technology that will help people locate specific information along the anticipated information superhighway. "This being the Information Age, there could be many opportunities for those who concentrate on developing or promoting new information technologies," he notes. But Ruhe is keeping his expectations under control. "I don't expect to get rich, but it's a fun hobby," he says.

Member David King, who is working on a prescription vitamin for people with nutritional deficiencies, says the key to success is to build on the knowledge you already hold. "I have 14 years of commercial experience in the pharmaceutical industry and saw an unmet medical need," he says. King is now using contacts he's making inside and outside of the forum to raise the $2 million needed to launch the product. "There certainly are opportunities for so-called garage inventors," he says, "although I invented this at my desk."

Sysop Barbara Burnes notes that the forum gives garage inventors many of the research resources that large labs take for granted, such as funding information, patent guidelines, product sources and the cross-fertilization of ideas. "If inventors and innovators follow the street signs and guideposts laid out in this forum, they can reach the land of Oz without ever leaving home," she says.

Behind the Screens

with John Edwards



Broken-Down Blues

Is there anything sadder in this whole wide world than a sick computer? I mean, other than a TV show starring Tom Arnold? I think not.

It just sort of sits there doing nothing (the sick computer, I mean, not Tom Arnold). No contented hard disk purr, no friendly flashing cursor, no nothing. Dead. A $2,000 brick.

At this point, most computer owners go through three stages: denial, anger and giving up in favor of watching Tom Arnold on television.

During the denial stage the average computer owner tries to fix the system by himself. For most owners, this involves pouring chicken soup through the PC's vent holes and sacrificing an 8088 to appease the great, irascible god Intel.

The anger stage is far more interesting. During this phase the typical owner will shout, "Naughty, naughty computer. Bad boy. If you don't start working real soon, I shall give you a good thrashing." Strangely enough this sometimes works, particularly if the system was built by a sensitive and caring computer maker.

But the smart computer owner will, of course, take the scientific approach to repairing his system. This approach most often involves:

1. Shaking the computer.
2. Striking the computer.
3. Visiting the all-night emergency clinic to get your hand bandaged.
4. Opening the lid for a quick look-see.
5. Closing the lid.
6. Wondering why you didn't buy a computer from that company with a 1,000-year, free, on-site repair plan.
7. Crying uncontrollably.
8. Calling a computer repair center.
9. Signing the loan papers.
10. Throwing a big party with all of your friends on the day your now-recovered computer arrives back home.

If It's Broke, Fix It

My couch's right front leg broke last Wednesday night.

I guess that's a piece of furniture's way of telling a guy that he ought to trim down by a few dozen pounds. Well, I don't make a habit of listening to furniture, so forget it.

Anyway, I had to find a way to fix my couch. I wanted to use some books, but they were already holding up other couches, chairs, stools, beds and loveseats around my home. Then it hit me. Bang!

I headed to the hall closet and got out my old IBM PC-XT and placed it under the right front corner of my couch. Perfect! It was just the right height and certainly an appropriate use for a computer with a processing speed slower than my metabolism. In all, it was my best idea since stenciling the international radiation warning symbol on my pool heater's propane tank. (Keeps the kids away.) I then sat down and continued to watch my tape of *The D.I.*, starring Jack Webb.

Just as the movie was getting interesting, my brother came into the room and noticed my contribution to high-tech interior styling. "Heh," he said, "either you should call *Better Homes and Gardens* for a photo shoot or alert IBM to the possibility of a product endorsement." He said my supine figure perched over a PC-XT reminded him of an ad he once saw that pictured an elephant reclining on a pile of floppy disks. He then left the room (with help).

You know, if I had the money, I'd buy one of those tower-style PCs, place a pillow on top of it and use it as an ottoman.

For more BTS gems by John Edwards, GO OLT-130. Edwards is a contributing editor of CompuServe Magazine. *His CompuServe User ID number is 70007,412.*

A Dutch How-To Treat

Dutch CompuServe members now can take advantage of a new reference tutorial called *De Kluwer CompuServe Gids* (Kluwer, 1993), a guidebook written by the prolific Dutch author Roelf Sluman.

Following a comprehensive introduction to CompuServe Information Manager, the book features two "guided tours" of the service. The first focuses on basic services, and the second highlights the extended services, such as the File Finders, the Executive News Service and CB Simulator. In addition, Sluman offers such reference material as a list of the most popular forums, tips on how to save money online and information on common abbreviations.

"I have tried to give the sense that someone is sitting next to you, answering your questions and guiding you through the various aspects of the service," he says.

Members throughout Europe can purchase a copy of the book, which comes with DOSCIM software and a $15 usage credit, via the CompuServe U.K. Store (GO ORDER).

Sluman, the author of more than 50 books, already is working on his next text, *CompuServe for Europe*, an English-language book to be published in September.

Online Auction Dos and Don'ts

Serious collectors know that the best bargains often are found at auctions. But Collectibles Forum (GO COLLECT) staffers and members point out that the mistakes made by auction novices are often quite costly.

Whether the auction is conducted in person, through the mail or online, neophyte bidders can increase their chances for success by keeping the following tips in mind:

"Read all of the bidding rules and guidelines," suggests Matt Mrowicki, section leader of the forum's Section 11, "Autographs." "It's also important to get references about auction houses from other collectors."

Member Tom Savage says a bidder should always personally examine the item that he or she plans to buy. "Many auction companies print beautiful catalogs with fancy descriptions," he notes. "But descriptions can be exaggerated, gradings can be inaccurate and defects can be ignored." In the case of a mail or online auction, where items generally cannot be viewed in person, Savage recommends that the bidder make sure there is a return privilege. (All of the Collectibles Forum's online auctions allow dissatisfied bidders to return items within a specified time period.)

Ron Abler, section leader of the forum's Section 7, "Other Collectibles," advises collectors to resist the temptation to overbid. "Set a maximum bid during the preview study, then stop bidding at that amount or one bid higher if another bidder has just bid your max."

CHRIS O'LEARY

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aapl	Apple Computer	40.000	150.000			11503	36.500	35.500	35.750	-0.750	$5,362.50	-$637.50
aaq df	Apple Call Jan94 $30					93	7.125	6.250	6.250	-0.750		
aaq dg	Apple Call Jan94 $35					78	3.750	3.375	3.375	-0.625		
dj 30	Dow Jones Avg					0	3,929.390	3,892.530	3,894.500	-11.820		
dow	Dow Chemical	58.000	50.000	55.000	70.000	1875	63.875	63.375	63.750	0.250	$3,187.50	$287.50
gm	General Motors	42.000	150.000			18883	64.250	63.375	63.750	0.750	$9,562.50	$3,262.50
ibm	IBM	44.000	100.000	48.000		10020	54.750	53.750	53.750	-0.500	$5,375.00	$975.00
nyt a	New York Times -A	22.000	100.000			188	27.250	26.500	26.625	-0.500	$2,662.50	$462.50
pci	Paramount Communicat	50.000	200.000	78.000		6093	77.000	76.750	77.000	0.500	$15,400.00	$5,400.00
tedmx	Templeton Dev Market	12.000	524.125			0	0.000	0.000	15.550	0.000	$8,150.14	$1,860.64
xon	Exxon	44.000	200.000			2990	65.625	65.125	65.125	-0.250	$13,025.00	$4,225.00
	Total										$62,725.14	$15,835.64

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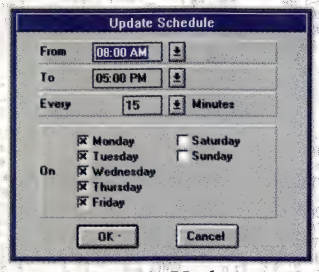

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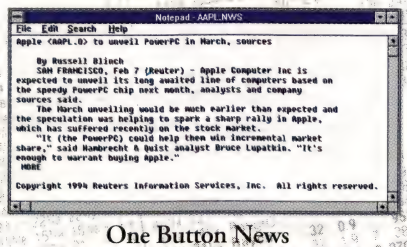

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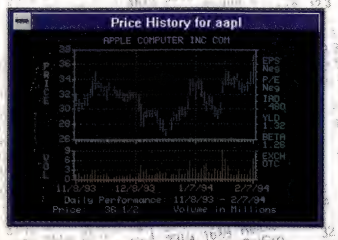

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by Michael Naver

Getting Down to PC UPKEEP

Simple cleaning, repairs and guideline-following can keep a PC in the pink and save money.

When the built-in monitor on Farokh Lam's 4-year-old Macintosh SE/30 displayed only a thin white line down the middle of the screen, he tried the "whack it and see if it starts up" technique. Nothing happened, so Lam of Boston, Massachusetts, called a local Apple dealer, who wanted $300 to fix the monitor—not a cost-effective choice for a computer worth about $800.

Lam's subsequent help message in the Macintosh Systems Forum (GO MACSYS) produced several suggestions, including purchasing Larry Pina's book, *Macintosh Repair and Upgrade Secrets* (Hayden, 1991), which helped him solve the problem. "Total cost, including the book, was about $50," says Lam.

Calls for hardware help are common in CompuServe forums from users whose monitors go blank, hard drives die and printers spew out dirty pages. Many of these problems are inevitable, but some can be prevented and others easily remedied with proper upkeep and general repairs. If disaster strikes, help is available in the forums.

"Don't think that you always need to go to your dealer to have things fixed," says Lam. Like the do-it-yourself car tinkerer, you can save dollars, preserve your investment and add years of life to your computer with a little time and effort.

Are maintenance measures effective? Yes, say the experts.

"Certain things will fail if left to themselves," says Neil Shapiro, chief sysop of the Macintosh forums (GO MAUG). "In most offices, dust is an issue. Diskette drives and keyboards get clogged with dust and should be cleaned periodically." Accumulated dust can overheat or otherwise interfere with system operation, thus shortening the life of key hardware components.

"If you open a computer, you'd be astonished at all the garbage the fan draws in," says Shapiro, who bimonthly cleans out the inside of his Macintosh Quadra 840 A/V and uses a small vacuum tool found in computer stores to suck up dust from the keyboard and diskette drive. "I clean out enough dog hair to make a small poodle," he says.

Don Watkins, chief forum manager for

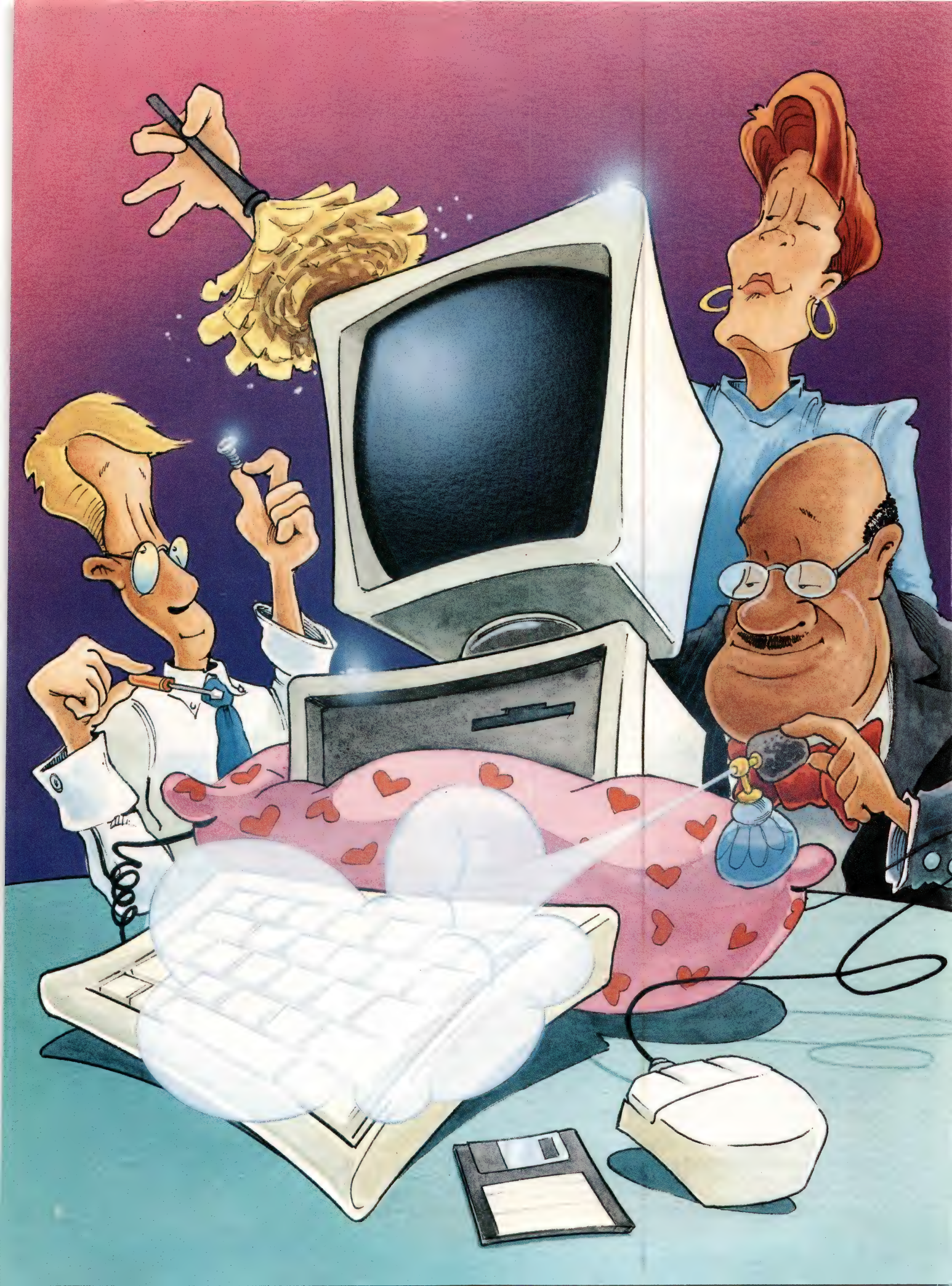
Michael Naver of Baltimore, Maryland, is a contributing editor of CompuServe Magazine *and a free-lance writer on technology applications for business. His CompuServe User ID number is 76004,2242.*

ILLUSTRATIONS BY RANDY VEROUGSTRAETE

FEATURE

CM's Cover Story:
Mild PC Maintenance and Quick Fixes

▼
Laptop Care, p.12
▼
Computer Servicing, p.15
▼
Online Hardware Support, p.18



Portable Pitfalls: How to Look After a Laptop

Looking at a laptop computer's flexing screen and thin casing, you would expect plenty of potential maintenance problems. After all, laptops don't reside full-time in 68-degree, humidity-controlled offices; they do time out in the real world—full of clumsy humans, dirt, heat, cold, soft drinks, and large expanses of concrete and water. You'd think these mortal enemies of LCDs and motherboards would have laptop owners buying replacements every year.

But you'd be wrong. Portables are becoming the low-maintenance wonders of the computing world, largely due to better design and construction. "Notebook PCs have improved on several fronts," says Scot Finnie, a free-lance magazine and book writer who has been involved with *PC/Computing*'s annual laptop tests that include such measures as freezing, baking and even a few minutes' tumbling in a carpeted clothes dryer.

"Screens are far better protected than they used to be, with beefier bezels and hinges that can articulate 180 degrees," says Finnie. "Most keyboard pans are sealed on the inside to prevent the intrusion of liquids. Hard disks have gotten hardier, case materials have become stronger and case designs are much smarter than they once were."

Routine cleaning of a laptop's trackball and screen are maintenance basics, says Rich Wolfson, author of *The PowerBook Companion*. Sweat, desk wax and lint can go from your hands to the trackball and rollers. "Use tape head cleaner or alcohol on a swab, and just wash and wipe the ball," he says. Screens never should be sprayed with cleaner, which may drip down into components. "Use screen wipes, which can be bought at a stationery store. Or some people like a dry cloth called Luminex."

Laptops have other care concerns, resolved here by suggestions from CompuServers who have learned the hard way:

Handling

Even though laptops are tough, you still should take care not to drop one. A hard landing on the machine's side or spread-eagle screen and keyboard can be particularly upsetting; carrying cases and even padded slipcovers can help prevent damage, especially if the case is designed specifically for your model laptop.

The same is true of removable hard drives. Ian Powley of the U.K.'s Animated Marketing stuffed a disk for his AST PowerExec into a shirt pocket just before catching a train. "It fell out while I was running along the platform, and it didn't bounce! The replacement arrived the next day in a padded pouch that would have prevented the problem."

Frank Tobe, a database consultant for political candidates and causes worldwide, cautions against letting children play with a laptop that's your lifeblood. His son broke his ThinkPad's color screen while carrying it away to play games. "Not only is the screen back-ordered, but it also is costly —$3,400—and not covered by IBM's warranty or my office property insurance."

Other handling advice:

ROBIN JAREAUX

Don't take a laptop's name at face value, says La Jolla, California, resident Martin Hill. "Using it on an unsturdy surface, such as your lap, can cause the hard drive stylus to bounce around and ding your drive."

Extreme cold and heat can, respectively, make for too rough a start on the hard drive and affect the integrity of the casing and LCD screens (don't eat hot food on a laptop's closed lid, notes Larry Sullivan of Racing Information Service). If you accidentally leave your laptop for a night in a freezing car trunk or a day on a blazing car seat, slow thawing or cooling for a couple of hours before startup is recommended.

Robert J. Jones of Calabasas, California, has learned care in dealing with external devices, such as parallel port LAN adapters and PCMCIA cards: "When attaching them, make sure you have first read all of the instructions. Many devices have warnings about not touching the connector pins to prevent damage from static," he says. Also, be sure to disconnect the devices before taking your laptop off your desk, to prevent "damage to your cabling or the device as it is forcibly ripped from your computer."

Airline travel can be rough on laptops. Placing a laptop in overhead compartments is an invitation to disaster, as Ken Gluckman of West Bloomfield, Michigan, found out: "When we landed, someone was getting his coat and pulled too hard. My Compaq took an extra flight from the overhead to the floor—the case was cracked, but it still worked," he says. Never check your laptop and carrying case for baggage handling. If your computer tote is too small for needed files and other accoutrements, consider a larger compartmentalized bag for flights limiting carry-ons to one bag.

Liquid spills and dirty conditions still can be a threat to older laptops. Sullivan has contended with both in covering dirt track races for the Motor Sports Forum. "A can of compressed air blows the dust out. A Pepsi spill required disassembling the computer, rinsing the keyboard in cold water, removing each keycap and cleaning it with Q-Tips, then drying it with the compressed air," he recalls. St. Paul, Minnesota, resident Mario Tosto recommends a makeshift keyboard cover made from heavy-duty plastic food wrap. "Cover the keys and use tape to hold it in place," he says. "To protect the diskette access, put tape over the area and slit it carefully with a razor blade."

Batteries

Getting more of a charge out of your batteries is becoming easier, with many laptops now using low-power 3.3-volt microprocessors and some sort of power management. Newer nickel-metal hydride (NiMH) batteries, which use a high-power density and external sealed lead-acid batteries such as VST's ThinPack, each offer longer per-charge run times and lessen the need for rotating between batteries.

Extend the life span of inexpensive nickel cadmium (NiCad) batteries by avoiding the "memory effect." "If you discharge a NiCad to a particular level—say down to 60 percent 'full'—time after time, the NiCad will develop a memory that causes it to act fully discharged when it reaches that level," says Joel Harper, author of the shareware PC-laptop program Rundown. Exhausting your NiCad's power completely every few charges helps prevent the effect.

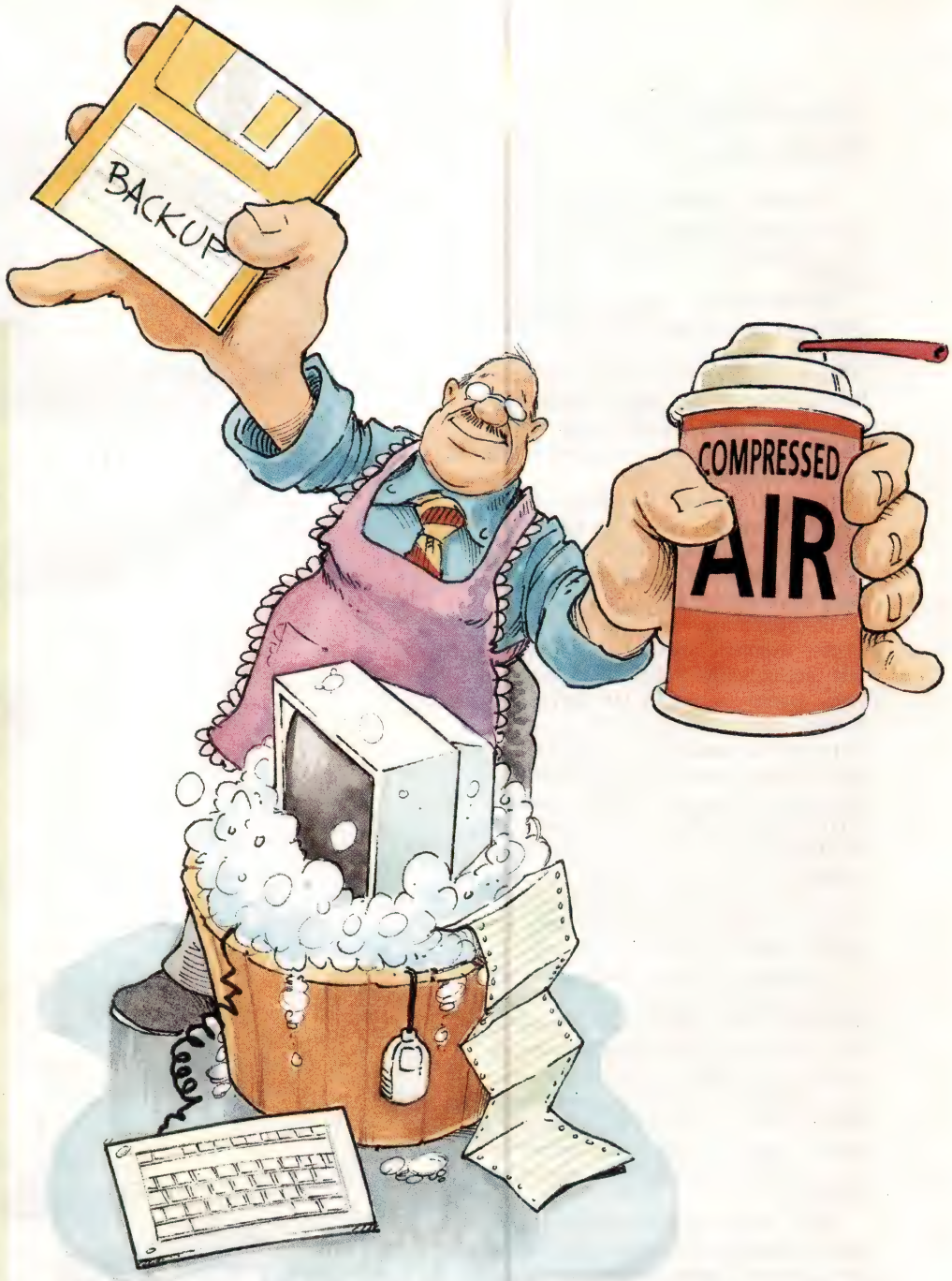
Don't always trust your time-remaining readout, says Hill. "If it's rated for three hours, you may get two or one and a half."

Security

Portables are portable to thieves, too, and PCs are lucrative resale items on the black market. Locking totes, cables and alarms are available, but J. Carey McGleish of Orion, Michigan, learned the best measures to take after losing years' worth of records and personal data on a burgled IBM L40-SX. "Always keep your backups separate from the laptop and use password protection if the manufacturer offers it."

Encrypting important business files or credit card information with such programs as Norton Encrypt is also a good idea.

—Christopher J. Galvin



A Computer Care Summary

Following is a summary of tips to keep your hardware problem-free. For more detailed information, consult fellow CompuServe members and vendor experts. See "Hardware Support Online" on p. 18 for a list of online areas where hardware issues are discussed.

Central Processing Unit (CPU)

Periodically open the box to clean inside parts with a vacuum cleaner or compressed air. Don't oil moving parts; if you need to lubricate, use silicon on a lint-free swab. Remove dust from diskette drives and other areas. Payoff: Removing dust reduces heat buildup and lets the computer run cooler for a longer life.

Hard Disk

Use a utility program every month to diagnose and "defragment" files on the disk. Use backup software regularly to preserve data in the event of a crash.

Printer

Clean with soft cloth, inside and out, when replacing laser toner cartridge. Clean antistatic teeth, paper access cover and paper feed guide. Clean printheads on inkjets.

Monitor

Place in a clean, dry area, out of direct sunlight. Clean screen with lint-free cloth and glass cleaner. Keep monitor away from devices that create strong magnetic fields.

Keyboard

Clean by blowing compressed air between keys to loosen dirt. In case of spills, wipe up. Carefully pull keycaps if necessary.

Mouse

Regularly clean ball and tracking mechanism with water or a mild detergent. Blow out dust with compressed air.

Modem

Connect to a reliable surge-protected outlet. Disconnect power line and phone connection when electrical storms are expected.

CD-ROM

Clean off dust inside and out with compressed air. Use a Q-Tip to gently wipe laser lens. Keep openings clear of obstructions.

the IBMNET forums (GO IBMNET), believes that mechanical parts, such as diskette drives, printers and tape drives, need more care and feeding than solid-state devices, such as computer chips, because chips have no moving parts.

Watkins offers these tips: "Keep air vents free of dirt, clean the diskette drive heads, keep the machine cool and protected from power surges. A good surge protector and proper air flow will keep computers happy—except for a few mechanical-related failures."

FEATURE

These tips can pay off in extending a computer's life. Watkins still has an original IBM PC, which is 11 years old. "Other than upgrades, the only thing I've done is replace a couple of diskette drives over the years. I expect it'll keep on chugging for many more years," he says.

Most new computers come with one- or two-year maintenance agreements. But is it worth paying to extend the warranty? Probably not, says Rick Ayres, chief sysop of the ZiffNet PC forums (GO ZIFFNET). "Service contracts are a waste of money. Instead, buy a PC with a longer manufacturer's warranty," he advises.

Watkins agrees. "You might come out ahead if you have a failure on a major part such as a motherboard. But those are fairly rare and will probably happen earlier while the machine is still under factory warranty. Other parts such as diskette drives have modest replacement costs, and you might be hard pressed to get back your investment in a service contract." On the other hand, if you don't feel comfortable replacing a diskette drive and you want on-site service, "the cost of that service call might pay for a contract," he points out.

Occasional upgrading of your computer's components is a useful way to extend its life. Scott Mueller, corporate trainer and author

Micro-Mechanically Inclined? Build a PC

If you want complete knowledge and control over your computer's hardware, there's only one way to get it: Assemble the computer yourself.

Building your own computer isn't as complicated as it might seem, but it does take a few basic technical and mechanical skills. "There's no real mystical skill needed," says Marshall Ewig, a New York City-based business consultant who has built several computers. "The worst thing that can happen is that you'll get an error message."

Although most parts are standard in size, you have to make sure they are compatible. Ewig likens the parts selection to a roulette wheel. "You may pick a combination that actually degrades performance," he warns.

There are a few drawbacks to this do-it-yourself approach beyond a slightly higher cost. Greensboro, North Carolina, resident Tim Victor warns that unlike the high-volume builders, you can't sort out the bugs in a prototype. "A manufacturer finds and fixes most of the problems with one test computer, then locks in the specifications for thousands of production PCs. When you build your own, the product life cycle is all research and development," he says, adding that your chances of success depend on how much you know about computers, how well you do your homework and how effectively you solve problems.

One place you can turn for research and problem-solving assistance is the IBM Hardware Forum (GO IBMHW), where many members have built their own computers and are willing to share their expertise. This is also a good source for component recommendations, as are the various PC vendor forums and specific interest forums, such as those for computer-aided design, graphics and desktop publishing.

Victor advises do-it-yourselfers to avoid buying the premium high-price brands, as well as the bargain-basement, generic parts. "I stay about one generation behind the cutting edge and buy into a technology after they've worked out the bugs and the prices have come down," he says.

Assemblers can expect to spend between three to five hours doing the actual work. Ewig offers these tips:

- Create a work area that is well lit and offers enough space.
- To avoid a static electricity charge, ground yourself properly by connecting a grounding strap to your wrist and hooking it to the case.
- Make sure the disk drive and CD-ROM drive have grounding lugs; use a wire to ground these to the chassis.
- If you are taking apart an old computer, save the little screws, jumpers, backplates that cover the slots, cables, extensions and y-connectors, as these are bound to come in handy.

—Cathryn Conroy

of the industry-standard book *Upgrading and Repairing PCs* (Que, 1992), says the computer's basic power supply, RAM memory and hard disk are good candidates for upgrade.

Power Supply

Of all hardware components, the power supply is the single most failure-prone item in the system, according to Mueller. This is because of poorly designed or underpowered power supplies found in some low-cost PC clones. "They are incapable of driving the system," he explains, and can bring about random reboots, startup glitches and blown configuration data. Sometimes you won't even know the power supply is at fault because "the problem won't surface until you upgrade another component."

There's nothing the user can do to reconfigure a bad power supply, other than replace it. Replacement is desirable, for example, if your old PC still has its original 63-and-one-half-watt power supply. "An upgrade to a 200-watt unit will let the system run cooler and extend its life," Mueller says.

Power supply problems don't show up as often on Macintosh computers, according to Mac forums Sysop David Ramsey. "Since there are no Mac clones, the power supplies are of a universally higher quality. Failure of a Mac power supply is rare," he says.

Many computer users wonder if they should leave their computers on or switch them off between sessions. Most experts advise against frequently switching the computer on and off. "Physical stress caused by heat expansion and contraction of the com-

What to Consider When 'Taking It In'

No matter how well you maintain your computer, someday it may need to be repaired. Where can you find good, reliable computer service?

Just as you seek the best mechanic for your car, so must you hunt for the best computer technician. One place to start is through a factory-authorized service center. Look in the Yellow Pages or call your computer's manufacturer and ask for local recommendations.

Another way to get recommendations is to post a message on local bulletin board systems. "Consider how the networking power of CompuServe lets you find quick answers to computer problems. Now apply that networking at the local level for answers to local questions," says Dave Cell, head of computer operations for Braselton Crane Works in Braselton, Georgia, and an active member of the IBM Hardware Forum (GO IBMHW).

When you take your machine in for service, be sure to get an estimate before you authorize any repairs and set a "not to exceed" repair cost. If you have any doubts about the shop, ask for a diagnosis and estimate only. You might even say you are only seeking a second opinion and make it clear the work will be done elsewhere. This approach reduces a technician's temptation to "find" nonexistent problems. Before you agree to any repairs, compare the cost to a new replacement component, as there may be only a small difference in price.

If you purchased your computer by mail, you may think service by mail would be an option. However, Cell advises this as a last resort or for specialized needs that just can't be met locally. "Shipping computers is not good for them," he warns. "What if the machine gets damaged in shipping while being returned to you after repair? Monitors, especially, are the most likely to suffer shipping damage."

If you pursue service by mail, carefully communicate the computer's symptoms to the technician or risk an unsatisfactory repair job.

No matter where you seek service, the first question to ask is whether the computer or peripheral is worth repairing. "In general, a machine is most worth servicing while it is under warranty," says Cell, noting that when the basic one-year warranty expires it might make better fiscal sense to upgrade the failed component rather than getting it fixed. If the hardware component is more than 2 or 3 years old, Cell advises to not even bother with repair and instead buy a new one.

In fact, he advises computer owners to repair only the most expensive components, which include the motherboard, hard disk drive and monitor. Even this should be done knowing that a repaired part, especially a hard disk drive, often doesn't last long. "If it is out of warranty, I would prefer to replace rather than repair," says Cell. "Cut your losses and get a new warranty started."

—Cathryn Conroy

When the warranty expires, buying new hardware often beats repairing it: Cell

MICHAEL WOOD ASSOCIATES

ponents each time they're powered up can shorten the computer's life," says Mueller.

On the other hand, it's best not to leave your computer on and unattended over long periods, such as over a weekend. Security needs, excessive energy use and the danger of short-circuits and fires are concerns. "Power-on the system only one time daily. Let it warm up for about 15 minutes before you write data to the hard drive," he recommends.

FEATURE

Hard Disks

Other than the power supply, conventional wisdom suggests that the hard disk potentially is the user's biggest headache. In fact, it's not a question of whether your hard drive will fail, but when.

The best prevention strategies are regular backups and tune-ups with utility software. "Hardware can be replaced. Data on a hard drive cannot," says Mark Fisher, a software engineer in Cincinnati, Ohio, whose IBM Model 80 hard drive failed. Fisher, however, was not aware that two extra hard drives he had would fit his machine until, at Mueller's suggestion, he contacted the vendor, who gave him the information he needed to identify the drives and install them. Mueller, a frequent visitor to the IBM Hardware Forum (GO IBMHW), also gave Fisher repair instructions for the old drive.

As the capacity of hard disks has grown from a standard 20 or 40 megabytes just a few years ago to 200, 300 and 400-plus megabyte disks today, backing up data to diskettes becomes less convenient. Shapiro's backup medium of choice is high-capacity digital audio tape. Using tapes with Retrospect software, he can restore individual files or folders in case of a disk crash.

Using diagnostic utilities is another good dose of prevention to ensure the long life of a hard disk. William Byrne of Arlington Heights, Illinois, credits the technical support staff in the Central Point Software Windows/Macintosh Forum (GO CPSWIN) for salvaging his tape backups after the data apparently were destroyed by an operating system bug. "CPS had me ship the tapes to Oregon, where they were repaired with less than a 2 percent data loss," he reports.

Another user, New York resident Larry Land, told members of the Central Point

Quick Fix: Maintenance and Repair Uploads

CompuServe forums contain hundreds of files for downloading on prevention and repair of your computer's hardware components. All are free or low-cost shareware. Here's a sampling. To find even more files, including some specific to your model of computer, access File Finder (GO FILEFINDER) and follow the menu prompts. Do a search using such keywords as FIX, PREVENT, REPAIR and MAINTENANCE.

DESKTOP PUBLISHING FORUM (GO DTPFORUM)

Ink Refill Ideas—Inexpensive refill solutions for owners of inkjet, bubblejet and other ink type printers, plotters and fax machines. Library 17, "News Releases," IJRPRE.TXT (2,107 bytes).

HEWLETT-PACKARD PERIPHERALS FORUM (GO HPPER)

Reinking—Information on re-inking the DeskJet HP 51608A cartridges. Library 5, "DeskJet," REINK.DJ (7,071 bytes).

Scanner Diagnostic—ScanJet/ScanJet+ test program for use in DOS. Library 7, "ScanJet," SJDIAG.ZIP (30,687 bytes).

IBM HARDWARE FORUM (GO IBMHW)

Diskette Drives Fix—How to fix the problem of a drive not recognizing an inserted diskette. Library 1, "Disk/Disk Utilities," FANTOM.FAQ (7,767 bytes).

Clean Diskette Drives—Clean a 3.5- or 5.25-inch diskette drive with a cleaning disk and this utility program. Library 1, CLEAN4.ZIP (9,344 bytes).

Disk Test—Allows thorough read/write testing of a hard disk or diskette without disturbing data. Library 1, HDTEST.ZIP (139,775 bytes).

Disk Format—Performs low-level hard disk formatting and other tests. Extract with ARC/ARC-E. Library 1, HD-DIA.ARC (17,408 bytes).

Laser Clean—Cleans laser printer drum by printing a "black" page. Library 2, "Printer Utilities," LZC25.ZIP (67,968 bytes).

Video Utilities—Video display and adapter diagnostics and six utilities. Library 3, "Video," MDMOD2.ZIP (39,069 bytes).

Burn-in—The complete stress tester for your PC. Run for 72 hours on new machines. If something is about to fail, Burnin will find it. Library 4, "General Hardware," BURN45.ZIP (108,412 bytes).

Snooper—System information utility useful for complete hardware inventory. Library 4, SNOOPR.ZIP (148,240 bytes).

Memory Monitor—Analyzes the contents of your computer's memory and displays map and chart of memory usage. Library 4, MONTOR.ZIP (56,501 bytes).

System Check—Provides 10 pages of details on devices and performance of your system, including Pentium detection. Library 4, SYSCHK.ZIP (86,912 bytes).

Keyboard Cleaning—Text file on how to safely clean your keyboard. Library 4, CLEAN.TXT (9,855 bytes).

MACINTOSH HARDWARE FORUM (GO MACHW)

File Recovery—A utility for recovering files from damaged Macintosh diskettes. Library 9, "Disks/Storage," FLOPPY.SIT (73,728 bytes).

Printhead—Save the costly expense of replacing the ImageWriter printhead if it overheats. Library 10, "Printers/Output," PRINTH.PIT (39,552 bytes).

MACINTOSH NEW USERS FORUM (GO MACNEW)

Desktop Repair—Rebuilds the Desktop file while preserving Finder comments. Library 5, "Disk Tools," MNRRPR.SIT (6,016 bytes).

Disinfectant—Free antiviral utility, effective against all known Macintosh viruses, including CODE 1 and MBDF-B. Extensive documentation is included. Library 6, "Anti-Virus Tools," DISINF.SEA (179,072 bytes).

ZENITH FORUM (GO ZENITH)

Diskette Repair—Almost any diskette that can be read by your computer can be processed by ANADISK. Library 5, "DOS Utilities," file ANADSK.ZIP (62,680 bytes).

Disk Rescue—Can rescue disks with bad sectors. Comes in handy when you get a "bad sector error" message. Library 5, REFRES.ARC (1,792 bytes).

DOS Forum (GO CPSDOS) that CPS antivirus software "saved me from getting a Michelangelo infection," which could have destroyed data on his hard drive.

Even the best prevention software is powerless, however, if the owner doesn't use it. Computer hotline technician Karen Davis of Chapel Hill, North Carolina, was upgrading hardware components on her '386-class machine and had moved the computer to another desk without "parking the heads" on her existing hard drive. This process is done automatically on modern hard drives but requires a user command on older machines.

FEATURE

When Davis tried to start up the computer, nothing happened. "I put out panicked calls to my knowledgeable friends, including two CompuServe members," she recalls. Still, Davis' story had a happy ending. She got her new components in place, including a new hard drive; but the old drive was ruined —its heads fused to a platter. Her advice to users upgrading older hard drives: "Always park your heads before you mess with your hard drive." Experts say you should never move your computer while the hard drive is reading or writing data.

Sometimes the problem is not the fault of the hard drive and is not easily prevented, as John Boyd learned when his original Compaq '386 "lunchbox luggable" quit on him. The computer error message said it was a hard disk failure, but the problem persisted even after Boyd replaced the disk twice.

Boyd found another Compaq owner in the Compaq Computer Forum (GO CPQFORUM) who was having the same problem. "Between us, we verified that it had to be a problem with the computer, not the hard disk." A message from a Compaq employee confirmed that a few units of this model had a known problem of the motherboard wiping out the hard disk.

The next time the disk failed, Boyd, a California construction manager, told the Compaq service center about the problem. "It took the technician a week to find the entry in the Compaq database. Compaq replaced the motherboard, and the computer worked just fine from then on," he says. "I couldn't have done anything to prevent the problem, but I did learn the value of having backups. And without access to CompuServe, the problem would not have been solved."

Monitors

Maintenance procedures for computer monitors are less complicated than those for hard drives, but they are just as important. As a new owner of a Toshiba laptop, Greg Hankins of Hendersonville, Tennessee, asked fellow members of the Toshiba Forum (GO TOSHIBA) what their recommendations were for cleaning dust off the screen. The advice he received was simple: Use a soft cloth and some standard glass cleaner. But don't spray the screen with the cleaner—put the cleaner on the cloth and gently wipe

away the dust.

Besides the screen-cleaning procedure suggested to Hankins, monitor manufacturers recommend several basic precautions. NEC Corp., for example, advises that it's important to use the monitor in a clean, dry area and face it away from direct sunlight. In addition, allow adequate ventilation around the monitor to dissipate heat, don't place heavy objects on it or on the power cord, and keep the monitor away from high-capacity transformers, electric motors and other devices, such as speakers or fans, which create strong magnetic fields.

Printers

Laser, inkjet and dot matrix printers also require periodic cleaning. Clean a laser printer every time you change the toner cartridge, or every 6,000 pages. Clean the outside with a damp cloth and the inside anti-static teeth, paper access cover and paper feed guide with a dry, lint-free cloth.

With inkjet printers, the printhead or print cartridge should be cleaned as needed. Bob Merchant, sysop of the Epson America Forum (GO EPSON), says users of Epson Stylus inkjet printers can push a button to perform a print cleaning cycle if dust or dried ink has diminished print quality. "This is performed only on an as-needed basis," Merchant explains, to save on ink usage.

Toby Mills of West County, Missouri, has a LaserJet III printer that was doing fine until he had to turn out a 200-page manual on a deadline. Then the printer started putting "ugly marks" on the paper—black streaks running horizontally and vertically on the page. The user guide was not on hand, so Mills checked out a help file in the Hewlett-Packard Peripherals Forum (GO HPPER). While the file (OPTPRT.APP in Library 2, "LaserJet II") contained troubleshooting tips, it did not solve Mills' problem. He took a sample page to a retail computer store, where the salesperson suggested he buy a new H-P toner cartridge. That, plus changing the printer cleaning bar, solved the problem.

Merchant points out that one mistake people often make in maintaining their printers is using alcohol, solvents or thinners to clean the rubber rollers. "This will cause the rubber parts to dry out and shorten the life of the rollers rather than make things better," says Merchant. He suggests using a cloth dampened with a mild detergent solution such as dishwashing soap, a substance which won't cause any harm.

Mice and Scanners

The lowly mouse offers an example of prevention being easier than cure. Mouse makers recommend regular cleaning of the ball and tracking mechanism to prevent a buildup of dust and lint.

To clean the mouse, turn it upside down and remove the ball-cage housing cover. Remove the ball from the housing and clean with tap water or a mild detergent. Use a clean, lint-free cloth to dry the ball. Blow air (from a can of compressed air available at photo and computer stores) into the ball cage to remove remaining dust. Return the ball to its housing and reattach. Trackballs can be cleaned in a similar fashion.

Mice are subject to food spills, which cancel any preventive maintenance measures, aside from keeping food and drinks at a distance from the computer work area. Toshiba Forum member David Tincher of Red Wing, Minnesota, spilled apple juice on his mouse and asked for help online. Fellow member Mel Snyder suggested that he immerse the mouse in unflavored seltzer for about five minutes, then agitate the roller ball in water. Next, Tincher received instructions to remove the mouse, repeat the process in a fresh glass of seltzer, then carefully blow out the mechanism with compressed air. "Put the mouse on a radiator to dry it out" was the final instruction, which Tincher followed with success.

Maintenance requirements for scanners

Where to Find Hardware Support Online

Following is a sampling of areas where members can find help for maintenance and repair of hardware such as monitors, printers, keyboards, modems and scanners. To find out if a particular company has an online support area, use the FIND command using the company name as the keyword.

Amiga User Forum (GO AMIGAUSER)—Sections and libraries support Amiga hardware and more.

Amiga Vendor Forum (GO AMIGAVENDOR)—Get support from major Amiga personal computer vendors such as NewTek, GVP, DKB Software, MicroBotics and Utilities Unlimited.

Atari Users Network (GO ATARINET)—Top menu providing access to news and Atari forums including the Atari Vendor Forum (GO ATARIVEN).

Canon Support Forum (GO CANON)—Sections and libraries support Canon printers, image scanners, personal computers, cameras, lenses and more.

Commodore Service Forum (GO CBMSERVICE)—Sections and libraries support Commodore hardware, other CBM computers and more.

Compaq Connection (GO COMPAQ)—Top menu provides access to Compaq product support information, Compaq worldwide addresses and phone numbers, and the Compaq Computer Forum (GO CPQFORUM). Sections and libraries support laptops/notebooks, portables, desktops, towers, printers and more.

Consumer Electronics Vendor Forum (GO CEVENDOR)—Get support from consumer electronics vendors including Pioneer Electronics, Harman Video, Fosgate Audionics, Electronic Industries Association, NHT and Videonics.

Dell Forum (GO DELL)—Sections and libraries support Dell Computer Corp.'s line of computers, including video and monitor hardware, peripherals and multimedia.

Desktop Publishing Vendor Forums (GO DTPVENDOR, GO DTPBVEN)—Get support in Desktop Publishing Vendor A Forum from desktop publishing vendors including Timeworks, QMS Inc., FontBank, Sigma Designs, CAI ColorAge, Hyphen, Frame Technology, Bitstream, EFI Support, Monotype, Scitex/SGAUA and XChange. Companies offering support in Desktop Publishing Vendor B Forum include Agfa, Caere Corp., TRUMATCH, Casady & Greene, PagePlus, TeleTypesetting and others.

Dr. Neuhaus Forum (GO NEUHAUS)—German-language support for Dr. Neuhaus modems and fax cards.

ELSA GmbH Forum (GO ELSA)—German-language support for ELSA MicroLink modems, MicroLink-ISDN boards and WINNER graphic cards.

Epson America Forum (GO EPSON)—Sections and libraries support Epson's line of portable and desktop computers, printers and accessories, including impact, inkjet and laser printers; image scanners; laptop and notebook PCs; and other products.

Gateway 2000 Forum (GO GATEWAY)—Sections and libraries support Gateway 2000 monitors, motherboards, multimedia equipment, portables and more.

Online with Hayes (GO HAYES)—Top menu provides access to Hayes product descriptions, upgrades and special support information, and the Hayes Forum (GO HAYFORUM). Sections and libraries support Ultra/Optima; the 9600/2400 V-series; Smartmodems, fax products; Hayes for the Mac, LANs and ESP/ESI; and more.

Hewlett-Packard Handhelds Forum (GO HPHAND)—Sections and libraries support Hewlett-Packard handheld computers, palmtop computers and calculators, including 95LX and 100LX hardware and vendors. Not officially sponsored by Hewlett-Packard.

Hewlett-Packard Peripherals Forum (GO HPPER)—Sections and libraries support Hewlett-Packard printers including LaserJet and LaserJet II, III and 4, DeskJet, PaintJet, ScanJet and networked printers; fax products; HP products for the Apple; other peripherals; and more. Not officially sponsored by Hewlett-Packard.

Hewlett-Packard OmniBook Forum (GO HPOMNIBOOK)—Sections and libraries support the Hewlett-Packard OmniBook superportable PC, including new users, hardware and more.

IBM Hardware Forum (GO IBMHW)—Sections and libraries support disks and disk utilities, printers and printer utilities, mall computers, 88/286 systems, '386 systems, '486/P5 systems, PCjr and more.

are also relatively simple. Hewlett-Packard recommends that scanner owners wipe the exterior with a soft cloth and mild detergent and dry it with a clean, soft cloth. The delivery guide sheet should be wiped clean inside and out. Cleaning prevents black lines from appearing on printouts.

FEATURE

Keyboards

The greatest victim of food spills is likely to be the keyboard. When fluids spill, the keyboard usually suffers, and it doesn't matter how diligently the owner has performed routine maintenance. Many members with this problem call for help in the forums and receive suggestions ranging from the mild to the drastic.

In the Macintosh Hardware Forum (GO MACHW), Chris Gibson of Hastings, Minnesota, advised a victim of a keyboard spill to immerse the key switches in a mixture of isopropyl alcohol and distilled water. "The water will take care of aqueous-soluble contamination, while the alcohol will help with any organics. Alcohol also will speed up the drying process."

The alcohol bath treatment should be a "last resort," according to keyboard maker Northgate Corp., represented in the PC Vendor A Forum (GO PCVENA). First wipe up the spill and see if the keyboard works. "If you have to pull the keycaps, use the puller tool we furnish and be careful not to damage the switches," says Northgate tech support staffer Tom Woods. He recommends using a liquid cleaner called Contact, available at computer stores.

For routine maintenance, Northgate recommends keeping the keyboard clean by blowing compressed air around the keys to loosen dirt. *Caution:* Don't blow air from your mouth to clean keyboards or any other device. Your mouth contains moisture, which can damage internal parts, experts advise.

CD-ROM Drives

With the explosion of interest in CD-ROM, maintenance and repair questions are common in the Multimedia Vendor Forum (GO MULTIVEN), says Sysop Courtney Harrington. His best CD-ROM maintenance tip: Keep it clean, inside and out. "CD-ROMs don't like dust and dirt," he explains. "They gum up the moving parts, but more important, they cause read errors by affecting the laser lens."

Harrington's first advice to users who get read errors is to blow out the unit with compressed air. Then gently wipe the laser lens with a Q-Tip. "In 90 percent of cases, this cures the problem," he says. Harrington also advises handling CDs carefully because

IBM ThinkPad Information Exchange Forum (GO THINKPAD)—Sections and libraries support IBM's ThinkPad.

Intel Forum (GO INTEL)—Sections and libraries support Intel LANDesk products, network printers and fax, PCMCIA fax modems, faxes and modems, CPUs, video and memory products, inboards/snap-ins and other Intel products.

Kodak CD Forum (GO KODAK)—Sections and libraries support Kodak Photo CDs, writable CDs, printers, image capture and more.

Logitech Forum (GO LOGITECH)—Sections and libraries support Logitech mouse and sound products, ScanMan, FotoMan and more.

Macintosh Hardware Forum (GO MACHW)—Sections and libraries cover Classic Macs, Modular Macs, Quadras, PowerBooks and portables, Performas, early Macs, printers, scanners, monitors and more.

Modem Vendor Forum (GO MODEMVEN)—Get support from modem vendors including Supra Corp., Boca Research, Global Village Comm, US Robotics, Telebit, Multi-Tech Systems, PSI Integration, Zoom, Megahertz, Computer Peripherals, The Complete PC, National Semiconductor, ZyXel and Prometheus.

NeXT Users Forum (GO NEXTFORUM)—Sections and libraries support NeXTstep, Intel hardware, non-Intel hardware and more.

PC Vendor Forums (GO PCVENA, GO PCVENB, GO PCVENC, etc., through GO PCVENJ)—To find out if the maker of your personal computer hardware and accessories offers technical support in one of these forums, type FIND and use the company name as the keyword.

Packard Bell Forum (GO PACKARDBELL)—Sections and libraries support Packard Bell mouse and video card drivers, EMS drivers, Oak VGA drivers, multimedia equipment and more.

Palmtop Forum (GO PALMTOP)—Sections and libraries support portable computer systems and handheld organizers, including Poqet Computers, Sharp Wizard, Casio B.O.S.S., Databook, Casio Z-7000 and other PDAs and palmtops, the Sharp PC-3000, modems and peripherals.

Pen Technology Forum (GO PENFORUM)—Sections and libraries support CIC, Slate Corp., EO/GO (Penpoint), PenRight!, PenWorld, Wacom Technology and other pen hardware.

Practical Peripherals Forum (GO PPIFORUM)—Sections and libraries cover Practical Peripherals low- and high-speed modems, pocket modems, fax modems, printer buffers and more.

Prisma GmbH Forum (GO PRISMA)—German-language support for Macintosh hardware distributed by Prisma.

Tandy Newsletter (GO TANDY)—Menu providing access to Tandy product announcements, product and technical information, Radio Shack customer service and feedback information, and Tandy-related forums (GO TANDY and choose Option 3, "Other help on Tandy Products," to access a list of these forums and their GO commands).

Texas Instruments Forum (GO TIFORUM)—Sections and libraries support Texas Instruments laptops, laser printers and more.

Toshiba America Computer Forum (GO TOSHIBA)—Support for Toshiba America computers, not including other Toshiba products such as printers, disk drives, televisions and stereos. Sections and libraries support tape drives, internal expansion, battery power, product specifications, third-party information, memory management and more.

Toshiba GmbH Forum (GO TOSHGER)—German-language support for Toshiba notebook computers.

U.K. Communications Forum (GO UKCOMMS)—Support for modems, faxes and more from vendors such as US Robotics (U.K.), Pace Microtechnologies and Psion Dacom.

U.K. Computing Forum (GO UKCOMP)—Support for IBM and Macintosh computer hardware from vendors such as Creative Labs U.K., Eden Group and Western Systems.

Zenith Data Systems Forum (GO ZENITH)—Support for Zenith Data Systems hardware including portable and desktop computers and peripherals. Not officially sponsored by Zenith.

dirt, scratches and fingerprints can cause future problems.

Sony Corp., a major vendor in CD-ROM, warns that slots in the external drive case are needed for ventilation so don't cover them with cloth or other materials. Never block the slots by placing the set on a soft bed, sofa or rug while in use.

Also, Sony warns not to place the set near a radiator or heat register, or where it's exposed to direct sunlight. Never push objects into the set through openings. This could touch dangerous voltage points or short out parts.

Modems

The modem is one hardware peripheral that tends to be reliable and doesn't require much maintenance. Modems have many parts, such as LEDs, speakers and power supplies, that fail, but for the most part they are a relatively sturdy piece of equipment, according to Yvonne Quetel, a Practical Peripherals Forum (GO PPIFORUM) technical support representative. Assistant Forum Sysop Mark Young adds, "Compared to the number of modems that are shipped, the number needing warranty service is very, very small."

For modem users who do experience mechanical glitches, power surges are the most common problem because modems are susceptible to high-voltage damage. Vendors recommend that you connect the modem to a reliable surge-protected electrical outlet. In addition, you should unplug the modem power line and phone connection, along with the rest of your computer, when electrical storms are expected.

Practical Peripherals Forum member Gene McAloon of Chicago, Illinois, fried his new 14,400-bps modem the first time he turned it on. "There was a loud buzz, a snap-crackle and white smoke from the top vents. End of modem," he says.

The problem was that McAloon thought he could use the power pack from his old 9600-bps modem on his new, more powerful one. Not so, according to Quetel. "The 14,400-bps power pack is 9 VAC 1 amp, while the PM9600SA uses 16 VAC out. So using the incorrect power pack may well blow the unit," she says.

Experts and fellow CompuServe members conclude that while computer hardware components are reliable and long-lasting, they can and do fail on occasion. Preventive maintenance, good common sense, a little bit of luck and CompuServe's forum resources, however, can help see you through most problems.

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by Jan Smith

CHRIS PYLE

Chip Decision

Buying a new PC? Picking from among today's faster processors is foremost, but only the first step.

Choosing a new PC has never been a simple task. Buyers face a barrage of conflicting claims, confusing terms and widely varying prices. The choices have become even more complicated with the recent arrival of Intel's Pentium processor, the DEC Alpha chip, the PowerPC from the IBM/Apple alliance and with Pentium-type clones in the works from AMD and Cyrix.

The newer processors offer unprecedented power and speed, but prices are high. Improvements in graphics technology and the proliferation of multimedia applications can confuse the issue still further.

Take heart. The key to finding the system that's best for you still boils down to just one question: What do you plan to do with your PC? Once you know what you need, and which components best meet those needs, you're well on your way to buying the perfect system for you.

Most experts consider a 25 MHz '486 PC to be the basic business system. "Power is key," says *PC Magazine* Contributing Editor Winn L. Rosch. "You need the utmost in performance so you can run Windows and such without spinning your wheels."

But that doesn't necessarily mean you need a Pentium. Engineering, computer-aided design, software development and other heavy number-crunching applications benefit from the Pentium's enhanced floating-point math coprocessor. But for just moving data around, a fast hard disk helps just as much. And for multimedia or other graphics-intensive applications, beefing up the video provides the most noticeable performance boost.

"Not everyone needs a Pentium; fast '486s are amazing buys right now," says *PC Magazine* columnist Jim Seymour. "The sweet spot in the market right now—the *value* point—is certainly the '486DX2/66-class machine. And for lots of users, even a lower-level '486 machine is fine."

The PowerPC, chip watchers say, is still on the horizon and probably won't be a major force for another year. "The PowerPC is something to think about rather than do anything about," says Rosch. "Currently the only operating systems for it are a UNIX-clone and Windows NT."

Seymour agrees, "I am high on the PowerPC, but I don't think the time for

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Pentium vs. PowerPC vs. '486

▼

How Smart Are '486 Upgrades? p.22

Jan Smith is a free-lance writer based in Jamaica Plains, Massachusetts. Her CompuServe User ID number is 76000,23.

'486 Upgrades—A Smart Choice?

It's a PC owner's dream: Make your PC the latest and greatest simply by popping in a new expansion board. Although it sounds great, the dream has never quite lived up to the promise.

PC manufacturers have two ways to make their systems upgradable. In the modular method, major components of a system, such as the processor and video subsystem, are on an expansion card. The user upgrades by removing the old card and inserting the new one. In the second method, an upgrade socket, called ZIF (zero-insertion force) or OverDrive, is placed on the system's motherboard. The user upgrades the system's processor by replacing the old chip with the new one.

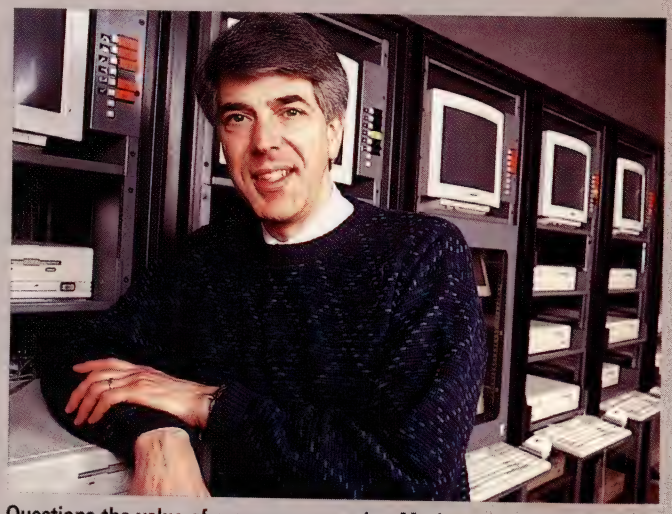
At least two manufacturers use boards or modules to upgrade '486 systems. Pentium processor boards for Compaq's Deskpro/M series and ALR's ProVEISA systems can be purchased for about $2,500, compared to up to $8,000 for a completely new system. Many other manufacturers put OverDrive sockets on motherboards, expecting to take advantage of a Pentium upgrade chip (the P24T) promised by Intel. After initial enthusiasm, however, many experts have cooled to the idea of upgradable PCs.

"I'm not a big fan of upgrading," says *PC Magazine* Contributing Editor Bill Machrone. "If your processor is the bottleneck today, putting in a faster processor simply moves the bottleneck to some other part of the system—video, hard disk or overall motherboard design. A new system is fully integrated, and you get the state of the art all the way around, especially if you're buying at the top of the market."

PC Magazine Contributing Editor Winn Rosch is even more skeptical. "The P24T Pentium upgrade has my head spinning," he says. "First, there's the confusion of three styles of sockets. Then there's the issue of whether it's worthwhile. Systems with P24T sockets are 32-bit designs that won't benefit from the Pentium 64-bit bus, though you still get the principal benefit of the Pentium —its improved coprocessor—which is about five times faster than the '486DX."

Machrone dismisses the concern that the Pentium chip, which runs hotter than '486 chips, would cause overheating in upgraded systems. "The Pentium heat issue is overheated. The real issue is how much of that additional power would be wasted because the other components aren't able to keep up, or the overall motherboard design doesn't allow it to run at full speed."

—JS



ARNOLD ADLER

Questions the value of processor upgrades: Machrone

'civilians'—that is, nonmulti-PC junkies—to buy PowerPC boxes is 1994, but rather 1995. Even then, Intel-based machines will still be cool choices, so no one should get hot and bothered about this yet."

Daniel R. Zemke, a sysop in the IBM Hardware Forum and IBM program manager for RISC System/6000 business development, expects that Mac users will adopt the PowerPC before users of Intel-based systems. "Apple will deliver most of the PowerPC systems in 1994 because they will provide several times the processing power of Apple's current systems," he says. "X86 users are likely to make the transition more gradually because the performance differential is not as great compared to Pentium."

There is no one right answer, of course. Many users will be well-served by a '486, while others will be happy with nothing less than the most powerful system available. And there are more things to consider than the processor in finding the perfect system.

Graphics applications, especially Windows and OS/2, take a lot of processing power to keep track of the complex images on the screen. Graphics accelerator cards, which use a dedicated processor to take the video processing burden off the CPU, are used most often to upgrade older systems. Local-bus video (also called VL-bus or VLB), used in new systems, makes Windows faster by giving the video signal its own speedy path to the display.

Peripheral Component Interconnect (PCI) is another bus architecture, newly released by Intel and used in some Pentium and '486 systems to move video and other data faster. PCI is designed to allow peripherals to run at much higher speeds than the old 8 MHz AT expansion bus permits. But the earliest versions of PCI, mostly implemented to speed up video, didn't live up to its promised performance benefit.

"Local bus is hot and doesn't necessarily cost more, so go for it," advises Rosch. "Any performance difference between PCI and VL-bus is going to be invisible to the user, so performance is not a good reason for choosing one over the other now. If you want a local bus, choose the one for which you can get the peripherals you want—when you want them. Currently that gives VL-bus an edge."

Jim Seymour disagrees, especially since many Pentium machines will use PCI. "VLB is history; PCI is the present and the future," he says.

What about multimedia? *PC Magazine* Contributing Editor Bill Machrone thinks potential buyers should look for fully integrated multimedia in their next systems. "Make sure the CD-ROM has a standard SCSI interface instead of a sound board manufacturer's proprietary interface to allow a choice of multispeed drives, or even small jukebox drives." Those who think they always can add multimedia later may find themselves knee-deep in interrupt conflicts and other integration problems.

Multimedia presents other demands as well. You'll want power to run multimedia, but not necessarily a Pentium, according to Rosch. "Bus limitations are the most important, so you'll want a local bus of some kind." He also recommends a sound board, a TV-compatible video board and a connection for your stereo (or add-on speakers). "A big disk helps," he says. "A CD-ROM is mandatory."

Your monitor is the window into your PC so don't overlook it when planning your ideal system. A 15-inch monitor, shipped with many new high-end systems, offers an addi-

continued on Page 24

Discuss It Online

Offer and solicit advice on buying a computer in the Canopus Forum's (GO CANOPUS) Section 15, "How to Buy a PC." This temporary message section, created to coincide with this month's article, offers novice and experienced computer users a specific online area where they can discuss what to look for and what to avoid in a new computer system.

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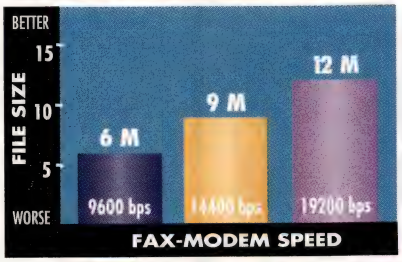

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continued from Page 22

tional 25 percent to 30 percent of screen real estate over the standard 14-inch display. That can make a difference if you spend a lot of time in Windows or other graphics applications and may be worth an extra few hundred dollars if the system you choose doesn't include it. For many design applications, 17- or 20-inch models are essential.

Additional RAM is another consideration. "Make sure that the amount and configuration of memory you select matches your current and likely future needs," says IBM's Zemke. Because of the way memory is installed, upgrading later may make the original memory modules useless. "You're better off to specify when you order the system that you want the ability to expand your memory later," he says. "You may have to pay a bit more up front, but it is typically worth it for future flexibility."

Finding the right system means combining the objective details of processor speed and memory requirements with more subjective considerations about price and tolerance for the potential bugs of new technology. Buyers with similar needs often go in different directions.

Thomas G. Moore, a production engineer from Wayne, New Jersey, recently bought a Gateway P5-60 Pentium system for two reasons: The price was not much higher than that of a comparable '486 system, and he thinks the Pentium won't become obsolete as quickly as a '486 will.

"Users should realize that the main advantage of the Pentium chip is not just the speed, but the 64-bit architecture it supports," he says, adding that too much importance is put on clock speed and not enough on the type of bus, architecture and video performance a machine has. "What good is a big engine when the exhaust system restricts its output?" he asks.

Buying at the right time is a balancing act. "You should get the most processing speed you can afford, especially since faster, more productive software with sound and video is becoming more popular today," Moore says, although he suggests waiting as long as you can before upgrading, since the market changes so quickly. "There is, however, no reason to stay with an obsolete machine if you run Windows and your business requires more productivity. Upgrading sooner could save your company time and money with a faster machine."

Boston-area law student Joseph Angeles was looking for reliability as well as power when he purchased a Compaq Deskpro Pentium system. "I wanted a machine that would give me enough hard disk room to breathe (510MB) and a free bay to expand, along with the growth of Windows code" and enough slots for an SCSI card for a CD-ROM drive.

For Windows use, he insisted on 1,280 by 1,024 resolution at 256 colors and was pleased with the system's Compaq Q-Vision 20-inch display. "Windows and the applications written for it require the fastest processor and graphics card that one can afford. I don't care about Winmarks or other laboratory speed indexes, but 'snappy' screen changes, redraws and scrolling are a must."

Stephen R. Booker, a CompuServe member and nuclear engineer from Chesapeake, Virginia, considered both a '486 and a Pentium and finally gave up his Commodore Colt 8088 system for a Compaq ProLinea '486DX250.

Booker's two primary considerations were video and processor speed because he wanted to explore the world of GIF files and fractals. "I needed the super VGA display and the processor with math coprocessor to handle the fractals," he says. "Now what took 36 hours on the 8088 takes about 15 minutes on the '486."

Booker rejected the Pentium for several reasons, including the chip's overheating problems, his belief that Pentium prices would remain high for awhile, and the fact that he didn't think Windows and his applications would use the advanced features of the Pentium. "I have a hard time visualizing a '486 being burdened with 64MB RAM with Windows 4.0 or higher, with a 500MB or 1GB hard drive," he explains. "So my best guess is that the '486 should last me 10 to 15 years."

Whatever you decide to buy, resign yourself to a couple of truths: The system you bought will be cheaper in a few months, and it will be obsolete in a few years. It's all part of the high-tech fun.

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PowerPC and Pentium Info Online

Information on PowerPC and Pentium processors is available in two forums sponsored by the technologies' manufacturers.

The new IBM PowerPC Forum (GO POWERPC) offers information, utilities and answers to questions on the PowerPC architecture. Managed by the IBM Power Personal Systems Division, the forum covers such topics as chips and architecture, operating systems, human-centered technology, applications and more. The libraries feature a publication index, a glossary of terms, and a question and answer section.

The Intel Forum (GO INTELFORUM), sponsored by Intel Corp., offers answers to questions on the Pentium processor in Section 9, "CPU/OverDrive/Math." Libraries contain an overview of the Pentium processor, questions and answers, performance benchmarks and the latest Pentium news.

TECHNOLOGY UPDATE

900 MHz breakthrough!

New technology launches wireless speaker revolution...

Recoton develops breakthrough technology which transmits stereo sound through walls, ceilings and floors up to 150 feet.

Breakthrough wireless speaker design blankets your home with music.

By Charles Anton

If you had to name just one new product "the most innovative of the year," what would you choose? Well, at the recent *International Consumer Electronics Show*, critics gave Recoton's new wireless stereo speaker system the *Design and Engineering Award* for being the "most innovative and outstanding new product."

Recoton was able to introduce this whole new generation of powerful wireless speakers due to the advent of 900 MHz technology. This newly approved breakthrough enables Recoton's wireless speakers to rival the sound of expensive wired speakers.

Recently approved technology. In June of 1989, the *Federal Communications Commission* allocated a band of radio frequencies stretching from 902 to 928 MHz for wireless, in-home product applications. Recoton, one of the world's leading wireless speaker manufacturers, took advantage of the FCC ruling by creating and introducing a new speaker system that utilizes the recently approved frequency band to transmit clearer, stronger stereo signals throughout your home.

Crisp sound throughout your home. Just imagine being able to listen to your stereo, TV, VCR or CD player in any room of your home without having to run miles of speaker wire. Plus, you'll never have to worry about range because the new 900 MHz technology allows stereo signals to travel over distances of 150 feet or more through walls, ceilings and floors without losing sound quality.

One transmitter, unlimited receivers. The powerful transmitter plugs into a headphone, audio-out or tape-out jack on your stereo or TV component, transmitting music wirelessly to your speakers or headphones. The speakers plug into an outlet. The one transmitter can broadcast to an unlimited number of stereo speakers and headphones. And since each speaker contains its own built in receiver/amplifier, there are no wires running from the stereo to the speakers.

Full dynamic range. The speaker, mounted in a bookshelf-sized acoustically constructed cabinet, provides a two-way bass reflex design for individual bass boost control. Full dynamic range is achieved by the use of a 2" tweeter and 4" woofer. Plus, automatic digital lock-in tuning guarantees optimum reception and eliminates drift. The new technology provides static-free, interference-free sound in virtually any environment. These speakers are also self-amplified; they can't be blown out no matter what your stereo's wattage.

150 foot range through walls!

Recoton gives you the freedom to listen to music wherever you want. Your music is no longer limited to the room your stereo is in. With the wireless headphones you can listen to your TV, stereo or CD player while you move freely between rooms, exercise or do other activities. And unlike infrared headphones, you don't have to be in a line-of-sight with the transmitter, giving you a full 150 foot range.

The headphones and speakers have their own built-in receiver, so no wires are needed between you and your stereo. One transmitter operates an unlimited number of speakers and headphones.

Recoton's transmitter sends music through walls to wireless speakers over a 75,000 square foot area.

Stereo or hi-fi, you decide. These speakers have the option of either stereo or hi-fi sound. You can use two speakers, one set on right channel and the other on left, for full stereo separation. Or, if you just want an extra speaker in another room, set it on mono and listen to both channels on one speaker. Mono combines both left and right channels for hi-fi sound. This option lets you put a pair of speakers in the den and get full stereo separation or put one speaker in the kitchen and get complete hi-fi sound.

These wireless stereo headphones have a built-in receiver.

Factory direct savings. Our commitment to quality and factory direct pricing allows us to sell more wireless speakers than anyone! For this reason, you can get these speakers far below retail with our 90 day *"Dare to Compare"* money-back guarantee and full one year manufacturer's warranty. For a limited time, the Recoton transmitter is only $69. It will operate an unlimited number of wireless speakers priced at $89 and wireless headphones at $59 each. Your order will be processed in 72 hours and shipped UPS.

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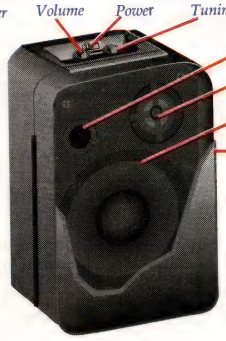

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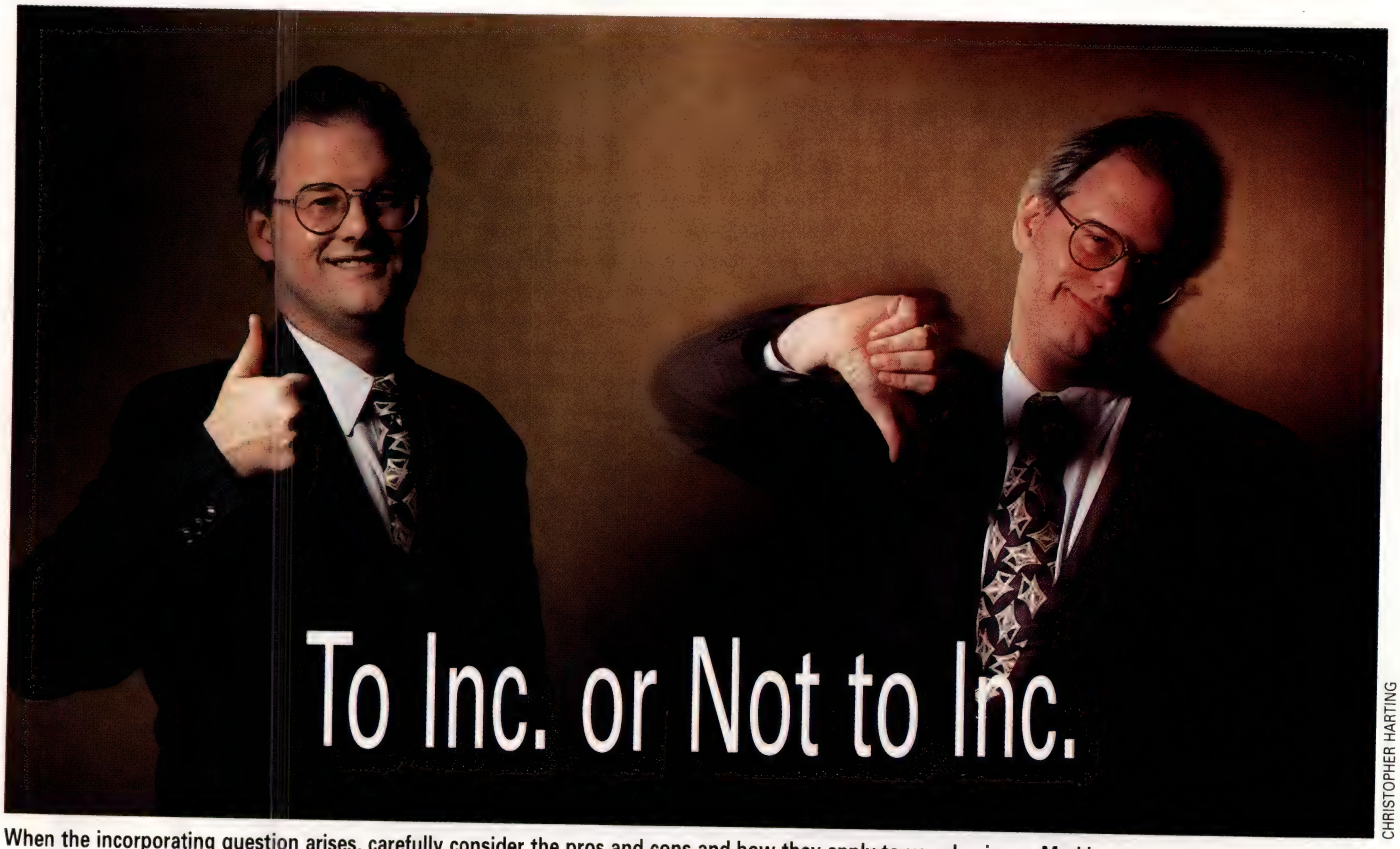
Recoton's Design and Engineering Award

by Linda Stern



To Inc. or Not to Inc.

CHRISTOPHER HARTING

When the incorporating question arises, carefully consider the pros and cons and how they apply to your business: Markham

Incorporating your small business may bring legal and PR benefits, but tax laws can even it all out.

People building businesses have many decisions to make, not the least of which is what form to adopt when organizing their companies. The basic forms—sole proprietorships, partnerships and corporations (see "Business Organizing Options," p.27)—all have advantages and disadvantages that can seem overwhelming to the entrepreneur who is more concerned with earning money than arranging and reporting it.

Luckily for online entrepreneurs, many answers can be found in CompuServe's forums, where accountants, attorneys and fellow businesspeople congregate and where the "should I incorporate?" question is a perennial subject of debate.

"There are four broad reasons for incorporation," says Charles Markham, an enrolled agent who lectures for the Internal Revenue Service on incorporation matters and frequents the Working From Home Forum (GO WORK). "The first is limited liability. There is the idea that if you incorporate, it can save you some legal exposure."

For a shareholder in a multimillion dollar company, this is quite true. But for a one-man shop, it is not true enough. "It's virtually impossible to insulate yourself from legal liability for your own mistakes," reports Gerry Elman, a Philadelphia attorney and an active participant in the Working From Home and Legal forums. "If you are the only one doing the work, regardless of whether it is delivered by a corporation or a proprietorship, you can be held liable for anything that goes wrong that is attributable to you."

If, however, you have employees, a corporation can shield you from personal liability for problems caused by your employees' actions. If your salesman causes a serious traffic accident, for example, your company may be held liable, but your personal property can't be attached if you are incorporated.

Markham's second argument for incorporating is the most straightforward: to accommodate outside investors. If you have an investor who wants to buy into your business, you have to incorporate, he says. A sole proprietorship can't sell stock; a partnership may not offer you the authority or your benefactor the liability shield that a corporation can.

The third reason for incorporating, says Markham, is public relations. "I think there's some little bit of extra sizzle if there is an Inc. after your name," he says. In some businesses, clients prefer to work with companies that are incorporated; they somehow sound more substantial.

This is particularly true in the field of computer consulting, where the IRS care-

Linda Stern is an award-winning business journalist whose weekly money columns appear in newspapers throughout the United States. Her CompuServe User ID number is 72160,1546.

PERSONAL ENTERPRISE

CM's Personal Enterprise Credo: Your livelihood is in the cards and circuit boards of a machine, whether it's running a home business, entrepreneuring or financial planning. If time is money, time online can build a treasury of ideas on saving and making both.

▼ The Good and Bad of Incorporating

▼ Small Business Profiles, p.30

▼ Ridding a Desk's Paper Pile, p.36

Business Organizing Options

Working From Home Forum (GO WORK) members have outlined the four basic options of business structures available to business owners:

Sole proprietors own their companies as single individuals. The financial and legal line between a sole proprietor and his or her company is nonexistent: Income passes directly from the company onto the owner's tax return, and the owner is responsible for the liabilities of the company. Sole proprietors file Schedule C forms with their personal 1040s; they can deduct 25 percent of their health insurance premiums on their personal 1040s, and they can establish tax-deferred Keogh and SEP IRA retirement accounts. Also, sole proprietors are the only business owners who legally can take home-office deductions, according to the Internal Revenue Service.

Partnerships are separate business entities, and income goes directly to the owners and is taxed on their individual returns. Partners can be held liable for the sins of their company. Also, partners can't take home-office deductions but enjoy other business deductions of sole proprietorships.

Corporations may be owned and operated by one person, but they are separate legal entities. There are two types of corporations: "C" and "S." C corporations are the kind you think of when you picture IBM or Exxon, although they don't have to be large. They are separate entities, subject to corporate taxes. Owners of C corporations can pay for their own health benefits and expenses through their companies; they pay themselves salaries and pay corporate taxes on the profits left in the company at year's end. Should the owner later take this money out of the company, it is considered taxable dividends by the IRS.

S corporations were established with the smaller business in mind. They have the same legal standing as C corporations but are less complicated for tax purposes. All profits left in an S corporation at the end of the year are taxed on the owner's personal return. S corporation owners are limited to the same 25 percent health insurance premium deduction as sole proprietors and partnerships.

Limited liability companies are a hybrid between a corporation and a partnership and are currently recognized in 36 states. Income from the company goes directly to the owners, just as it would in a partnership or S corporation, and the tax breaks (or lack thereof) are similar to those associated with partnerships. The main advantage is the protection from liability that these companies deliver, according to Washington attorney David Neufeld, who is executive director of the Association of Limited Liability Companies and participates in the Working From Home and Legal (GO LAWSIG) forums. Limited liability companies must have at least two owners, can have foreign owners and generally are larger than S corporations.

—LS

fully scrutinizes arrangements to ensure that consultants are not employees. If they are, the person hiring them must pay payroll taxes such as Social Security and unemployment insurance for them.

Computer consultants often work on-site and typically work for third-party vendors, explains Herman Holtz, author of *The Complete Guide to Consulting Contracts* (Dearborn Trade, 1994). That makes it harder for them to prove they aren't employees of the vendors, and it makes the vendors wary of arrangements that might force them to pay payroll taxes. Hence, many vendors require their consultants to be incorporated in the hopes that it will prove to the IRS that there is an independent, arm's length relationship. It's another Catch-22, notes Nick Cvetkovic, who is active in the Computer Consultants Forum (GO CONSULT). Incorporating doesn't really prove much to the IRS, but *not* incorporating can take you off the lists of many potential clients.

Finally, says Markham, is the reason most people think of first: taxes. People incorporate to save money on taxes, although this doesn't always work out as planned. The forums are full of people who incorporated to save money, only to discover that they lost as many deductions as they gained.

CompuServe member Scott Ogle, an independent home-based sports cameraman, producer and director in Boulder, Colorado, incorporated in 1990 and lost his home-office deduction. He began paying payroll taxes, such as Social Security, Medicare, unemploy-

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ACCUTRADE	48	48	48	90	35	35	45
WATERHOUSE	42	124	199	226	33	36	49
OLDE	60	100	150	205	40	40	65
QUICK & REILLY	77	128	171	171	41	46	61
PCFN	80	140	160	160	40	44	53
SCHWAB	100	166	221	221	41	46	61
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ment insurance and workman's compensation, for his own salary. Most recently, an audit by his state employment board ended with Ogle being assessed employment taxes for the independent taxi driver he hires to take him to and from the airport.

Confronted with added employment taxes, higher accounting fees, the loss of the home-office deduction and a mound of reporting forms and paperwork, Ogle is reconsidering the whole incorporation decision. "I would say it's cost me money, big time. I would say the accountant has gotten it all—if there were any savings," he says.

PERSONAL ENTERPRISE

That's the bad news. Doug Perreault, a CPA from Tampa, Florida, who just incorporated his own business, counters that the good news also can be substantial. Savvy S corporation (for a definition see "Business Organizing Options," p.27) owners can take less money as salary and more as dividends, avoiding the substantial payroll taxes on their income. "You can have a medical reimbursement plan if you are a C corporation, and you can consider that two-day vacation a corporate board meeting," he notes. "If you are in a high personal tax bracket, you also can leave money in your C corporation and have it taxed at a lower income tax rate."

However, being overly aggressive can backfire. The IRS takes a dim view of people who take artificially low salaries and reward themselves generously with dividends and perquisites. In one case discussed online, a woman incorporated, took *no* salary, pulled everything out of her S corporation as dividends, and then howled when she discovered she couldn't put money into her retirement account or take the 25 percent health insurance deduction because she had no salary. Computer consultant Nick Cvetkovic and his wife, Christine Keller, keep their salaries to a minimum, but pay for all their health care and automobiles through their corporation.

So, how much will incorporating cost you? Annual filing fees vary by state. The Company Corp. (GO CORP), an online firm that will handle all the paperwork and filing for you, lists initial state fees ranging from $45 in Nebraska to $900 for California.

The Company Corp., based in Delaware, charges nothing to file your incorporation if they are your registered agent, in which case it supplies a corporate address that's open and staffed at all times. You pay only your first year's registered agent fee—$45 in Delaware and $100 in all other states. Otherwise, they charge a $150 filing fee.

And forms there will be, even after you are an "Inc." That title confers nothing so much as paperwork. CompuServe member

CHRISTOPHER WRIGHT

Tax breaks flavor the deal: Perreault

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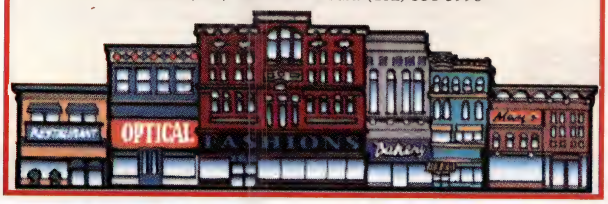


GO OLI for more information.

Inc. Info: Online Resources

The incorporation decision should be made thoughtfully, and business owners need to be armed with thorough research. Here are some online files and articles that should help:

WORKING FROM HOME FORUM (GO WORK)

Personal Tales—Members share their stories of incorporation in this thread. Some report great advantages, others don't. Library 2, "Business Info," INC.TXT (16,500 bytes).

Pros and Cons—Which is better, a sole proprietorship or a corporation? The relative merits of both are discussed in this thread. Library 2, INC.THD (6,494 bytes).

COMPUTER CONSULTANTS FORUM (GO CONSULT)

Tax Status Help—Does incorporating help combat the denial of independent contractor status by the IRS? Comments from members with experience on both sides of that question are in this thread. Library 6, "Political and Legal," ICSTAT.THD (11,000 bytes).

Paperwork!—How to handle the mechanics of incorporation, including particulars of stock distributions, payroll forms. Library 6, INC3.THD (27,500 bytes).

Bankruptcy Help—Does incorporating provide personal protection in case of business failure? This thread explains when it does and doesn't. Library 6, CORPOR.THD (5,556 bytes).

LEGAL FORUM (GO LAWSIG)

Why Inc.?—The Company Corp., an online incorporating service, lays out its pro-incorporation stance and provides a fee list. Library 11, "Demos, Vendors," INCORP.TXT (9,701 bytes).

How Much Will This Cost?—The Company Corp. lists all state fees for incorporating. Library 11, INCORP.FEE (4,467 bytes).

Ken Jacobs, an Atlanta-based free-lance technical writer, incorporated in 1992 and pays federal and other payroll taxes to a separate bank account monthly with a 941 coupon that the bank forwards to the IRS. Quarterly, he pays state and federal unemployment taxes and files a form 941, reporting salaries paid and payroll taxes owed, to the IRS. Annually, he fills out a 940 federal tax form, an annual state withholding form, sends himself a W-2, sends a W-3 to the federal government, files an 1120 S tax form for his S corporation and a 1040 tax form for his personal taxes.

So consider the paperwork as carefully as the other pros and cons when you are thinking of incorporating. Here are some tips to keep in mind:

Don't rush into it. Many forum members have noted that they incorporated their companies to little or no advantage.

Spend money getting advice on what's right for your situation, but don't blow the budget getting the papers filled out. That's the easy part.

Change your status effective Jan. 1. You can incorporate before then, but if you do, you'll be filing two sets of tax forms for the year, reminds Doug Perreault.

Don't create excessive layers of complexity and rearrange your life unnecessarily to save money on taxes. The IRS gets wiser all the time to unnatural tax-avoidance techniques, and tax laws change.

Don't put unnecessary pressure on yourself about the magnitude of it all. Nothing is ever final. If you incorporate and hate it, you can dissolve the corporation. If you elect S corporation status and change your mind, you can revert to C the following year. If you decide to remain a sole proprietor, you can always incorporate next year.

Read More About It

MAGAZINE DATABASE PLUS (GO MAGDB)

These articles are available in full text.

"Should You Incorporate?" *Home Office Computing,* November 1991. Reference #A11461051.

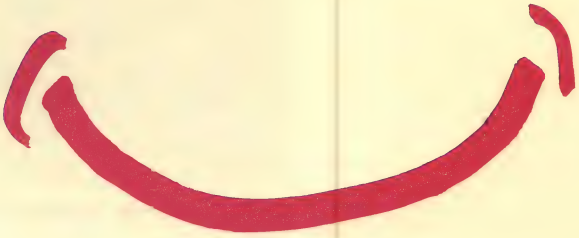
"Limited Liability Companies," *Inc.,* November 1991. Reference #A11263164.

BUSINESS DATABASE PLUS (GO BUSDB)

"Small Wonder Delaware State Is Good Place to Incorporate," *Philadelphia Business Journal,* Jan. 25, 1993. Reference #A14371061.

"Kansas Firm May Pioneer New Corporate Format," *Accounting Today,* Dec. 21, 1992, Reference #A13079493.

"Some Tax Help for the Home Business Operator," *Modern Machine Shop,* October 1992, Reference #A12306699.



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STAY ON TOP

by Cary Roberts

ROBERT FLISCHEL

Created a top-breed business with affection for dogs and computers: The Woolfs

Profiles in Online Business

A look at entrepreneurial efforts stemming from the modem life.

Half of all independent businesses fail within the first five years. Why? According to the U.S. National Federation of Independent Businesses, it's often because of poor overall management and insufficient profits. Add to that the challenges of government red tape, developing sales accounts, and performing accurate accounting and record-keeping tasks, and aspiring entrepreneurs need all the help they can get.

Mary Ellen Bates, a home-based information professional in Washington, D.C., got that help from CompuServe. By participating in the Working From Home Forum (GO WORK), she learned firsthand about others' mistakes, thus avoiding many of her own. "A lot of people are good at what they do, but they fail because of more mercenary things such as marketing and collections. I was prepared for the varied responsibilities, even that of the person who calls and says, 'I have to have my check today.' "

Like Bates' information firm, many small businesses succeed and grow thanks in part to CompuServe's offerings, which help them increase their client base, contact industry leaders, exchange critical information quickly and more. Following are five such enterprises.

PERSONAL ENTERPRISE

Canis Major Publications

When Norma and Tom Woolf started Canis Major Publications, she loved dogs and he loved computers. For three years they've produced the award-winning *Dog Owner's Guide* newspaper and several dog-related newsletters and now share (or at least know *a lot* about) each others' passions.

Drawing on her experience as a dog training instructor and journalist, Norma focuses on writing and designing the publications while Tom, a retired AT&T employee with years of mainframe programming experience, handles the business end. With two '486s, they turn out *Headline News*, a monthly newsletter for Akita breed owners and breeders; a bimonthly newsletter for the National Animal Interest Alliance, a U.S.-based animal welfare group; and two editions of *DOG*, which was named "Best Canine Newspaper in America" at the 1991, 1992 and 1993 Dog Writer's Association of America competitions. (To find Canis Major Publications' articles, search the Pets/Animal Forum's (GO PETS) Library 3, "Dog Library," using the keyword WOOLF.)

Except for a few free-lance writers, the couple run their company unassisted and that means doing everything from choosing story ideas to delivering *DOG* to area veterinarians, groomers, breeders, pet supply stores and libraries where it is distributed free; however, they often turn to CompuServe for help. "We talk to breeders and owners from both coasts in the Pets Forum to ask questions, generate ideas and stay on top of the issues," Norma says. They also collect background articles by maintaining Executive News Service (GO ENS) clipping folders for "dog" and "canine." To find advertisers and distributors in a given area, Tom uses Biz*File (GO BIZFILE).

But they don't just get information from CompuServe, they give a lot, too. "Our business is teaching responsible pet ownership, so we spend a lot of time in the Pets Forum's Section 3, 'Dog's World,' to assist with problems, particularly those involved with breed selection," Tom notes. At last count, the Woolfs had uploaded 75 articles to the forum library, which had received more than 10,000 individual downloads.

Flash Creative Management

In 1993, *Inc.* magazine named Flash Creative Management one of the United States' 500 fastest growing privately held companies. When new employees join the River Edge, New Jersey-based management and software consulting firm, they receive a desk, phone, computer, the necessary manuals and a CompuServe User ID number.

The company specializes in providing business solutions for its clients via business analysis, software recommendations, software development and training. It primarily uses Microsoft's FoxPro, Visual Basic and Access in meeting this goal. Typically, an organization requests an application to do something, such as create a link between Lotus Symphony and an accounting program, and Flash provides it.

Flash employees answer questions in the Fox Forum (GO FOX) and the Fox Users Forum (GO FOXUSER), especially those

continued on Page 32

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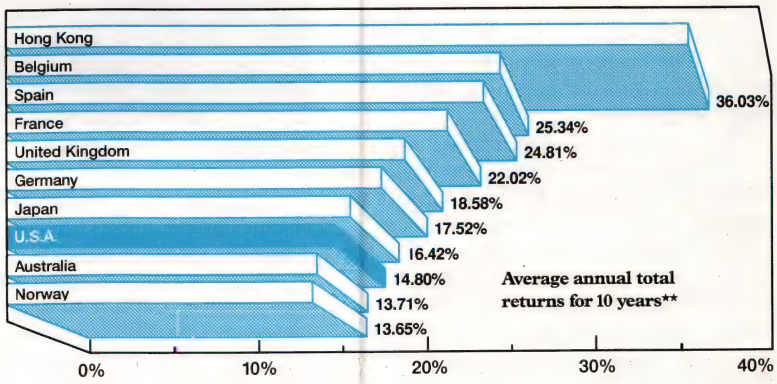

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continued from Page 30

about *The FoxPro Codebook* (SYBEX, 1994), a how-to text on putting applications together with FoxPro database software, written by Flash partner Y. Alan Griver. Proof of their online presence is the "Most Valued Professional" award Microsoft gave to Griver for providing significant support to fellow members in the forum.

Time online bolsters the company's consulting and training businesses. "The best consultant is one who can find anything out. CompuServe is like having an extra thousand people resource directory at my fingertips," says Menachem Bazian, senior associate. Many members who have received Flash's help online refer the company to others. "The business justifications are that participation gets our name out, and we get leads," Bazian says.

The desire to be good samaritans has fueled Flash's growth from four employees working in President David Blumenthal's basement to a thriving 25-employee firm.

And they never try to "out fox" other forum members. They freely share their information, even with would-be competitors. Bazian explains that there is plenty of business to go around and says, "The family atmosphere in the Fox Forum has contributed to the overall growth and improvement of the FoxPro industry."

Elyse Chapman & Associates

Elyse Chapman receives a lot of electronic mail—much of it from herself. When this Claremont, California-based art director/designer and Desktop Publishing Forum (GO DTPFORUM) sysop is working on an important free-lance project for a client, she saves the work-in-progress, archives its file and uploads it to her CompuServe Mail box. Even if her computer crashes and her backups fail, she can access her work elsewhere.

JIM RUSH

Sends files in a GIF: Chapman

W. J. LONGCOR STUDIO

Company profits from online outlet: Yablon

Chapman also sends Graphics Interchange Format images to clients on both U.S. coasts. She usually faces strict deadlines, so to get approval for a last-minute change, she does a screen capture of the piece, as displayed in QuarkXPress or illustration software, and converts it to GIF Format with Adobe Photoshop or a GIF conversion utility and sends it through electronic mail. When her clients are on CompuServe, "we don't have to stop everything, negotiate modem settings, and figure out who should call whom and when for a modem-to-modem transfer. I simply upload the file when it's convenient, and they either approve it or make a request," Chapman says.

Recently, she created the chapter opener illustrations for fellow Desktop Publishing Forum Sysop Brad Walrod's *QuarkXPress Unleashed* (Random House, 1994). He sent Chapman the QuarkXPress page templates, and she plugged her illustrations right in. She e-mailed the pages back to him with her contributions. He approved them and inserted the pages into his book.

Using her online contacts to stay on top of desktop publishing issues, Chapman arms herself for the other aspect of her business: training. As a traveling Macintosh consultant and trainer and a Quark Authorized Training Consultant, she visits various organizations and trains the employees on their equipment. Because of the participation of vendors such as Quark in the DTP Forum, she can tell her clients about the latest software updates and program add-ons.

It's Your Money Inc.

When many of his clients wanted help installing and setting up the computer equipment that he helped them research and buy, Jeff Yablon, president of Mount Arlington, New Jersey-based It's Your Money Inc., expanded his automobile, electronics and PC purchasing business to include computer consulting. But he didn't stop there.

To keep in touch with his clients, Yablon started the *IYM Software Review* in 1989. It was so well-received that he quickly made it available to the general public via online services and electronic bulletin boards. Today the quarterly, 16-page newsletter, which provides no-nonsense information for 80x86-based and compatible computers, has grown to a print circulation of 6,500 and an electronic circulation of approximately 45,000. "We're in front of that many people because we designed the newsletter from the outset to be electronic," he explains. (Articles from *IYM Software Review* are available in the General Computing Forum's (GO GENCOM) Library 5, "IYM Software Review.")

The newsletter provides a stark contrast to large newsstand computer magazines both in appearance and in content, according to Yablon. It is mainly plain black-and-white text and has no advertisements. "ASCII text is ugly, for sure, but it's reliable," he says. The newsletter's 800- to 1,000-word articles

ROBERT GLICK

Employee presence in the Fox forums generates business: Flash Creative Management

LINDA BARTLETT

Digs up elusive data: Bates

are targeted to small businesses, which lack the resources of Fortune 500 companies, and include such information as how much memory a program *really* needs to run and how much disk space it takes up after deleting extraneous printer drivers, terminal emulations and files.

Besides the publishing business, Yablon also performs systems integration work and distributes his shareware program Uninstall for Windows, a utility that erases programs from hard drives. (Uninstall is available in the General Computing Forum, Library 5, "IYM Software Review," UN4WIN.ZIP, 54,121 bytes.) In the 15 months Uninstall has been available as shareware, 14,000 copies have been registered at $19 each. "There's no way that a company with eight employees could distribute that many copies of a $19 product other than online," Yablon says.

PERSONAL ENTERPRISE

Bates Information Services

It is Mary Ellen Bates' business to be informed. Whether her clients need the history of bungee jumping, an analysis of Sri Lanka's business climate or a quick study on the export market for consumer binoculars, Bates uses CompuServe to compete as a Washington, D.C.-based information broker. "This isn't the kind of business where you can put an ad in the paper and have people come to you. People are buying confidence. They must believe you can find something they can't," Bates explains.

While many clients come from word-of-mouth references, she also gets leads and referrals online. The Working From Home Forum's Section 4, "Researching Information," and a private section for the Association of Independent Information Professionals, link her to others in her field who often supply her with subcontracting work.

Such was the case with Amelia Kassel of Sebastopol, California, whom she met in the private section. "We've got plans for teaching a class together, and we're sending our marketing brochures back and forth online. When we finally meet in person, we're going to have to walk up to each other with signs," says Bates.

Because she specializes in marketing information, Bates' clients are mostly advertising and public relations firms. She turns to the Public Relations and Marketing Forum (GO PRSIG) for additional leads and a feel for the industry. She frequently lurks in the forum to discover those professionals' issues and needs. "I feel like a fly on the wall sitting in on a PR firm's staff meeting," says Bates. "I can't go to my clients and say, 'Can I sit in on your meetings?' CompuServe gives me a perspective I could not get any other way."

Cary Roberts is an assistant editor of CompuServe Magazine. *Her User ID number is 70004,2650.*

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Our Profilees' Online Haunts

CompuServe's forums and services are key ingredients in the success of Canis Major Publications, Flash Creative Management, Elyse Chapman and Associates, It's Your Money Inc. and Bates Information Services. Following are the companies' most-frequented online areas.

Biz*File (GO BIZFILE)—Search by company name, phone number or type of business for information on more than 10 million U.S. and Canadian businesses.

***Data Based Advisor* Forum (GO DBADVISOR)**—Interact with the editors of *Data Based Advisor* magazine, which addresses the use and development of desktop database applications. Share information with leaders, teachers, veteran database developers and others; get the latest source code and demos; and interact with representatives from more than 40 database vendors.

Desktop Publishing Forum (GO DTPFORUM)—Find answers to desktop publishing questions and exchange advice with others in the field on such issues as using Macs, DOS and Windows for desktop publishing; scanners; layout; printing and more.

Desktop Publishing Vendor Forum (GO DTPVENDOR)—Get help from representatives of companies including Bitstream, CAI ColorAge, EFI, FontBank, Frame Technology, GCA, Hyphen, Monotype, QMS Inc., Scitex/SGAUA, Sigma Designs, Timeworks and XChange.

Desktop Publishing Vendor B Forum (GO DTPBVEN)—Get help from representatives of companies such as Agfa, Caere Corp., Casady & Greene, PagePlus, TeleTypesetting and TRUMATCH.

Executive News Service (GO ENS)—Newsclipping service gives access to up-to-the-minute stories from The Associated Press, United Press International, Reuters Reports, *The Washington Post*, Deutsche Presse-Agentur and OTC NewsAlert. Review stories from the last 24 hours, set up clipping folders to retrieve stories on designated topics or search for company news by ticker symbol.

General Computing Forum (GO GENCOM)—Organizations dedicated to the dissemination of news, information, support and software relating to the computer industry provide support for current and prospective members. Participating organizations are the Software Entrepreneur's Forum, the Institute for Certification of Computer Professionals, the Association for Customer Support Professionals, *IYM Software Review*, the National Computer Security Association, the American Computer Scientists Association and Logic Works Inc.

IBM Applications Forum (GO IBMAPP)—Gather applications for your personal computer, including word processing, database management, business, personal accounting, graphics and educational software.

IBM Systems/Utilities Forum (GO IBMSYS)—Look for the latest and best in general utilities and information about PC operating systems and environments.

Microsoft Fox Software Forum (GO FOXFORUM) and Microsoft Fox Users Forum (GO FOXUSER)—Exchange information about and tips and techniques for Microsoft Fox products with Microsoft Support Network staff members and other users.

Pets/Animal Forum (GO PETS)—Meet with professionals and laymen to discuss problems and solutions pertaining to animals of all kinds, from dogs and cats to bats, snakes and other exotic creatures.

Public Relations and Marketing Forum (GO PRSIG)—Find job leads and discuss all aspects of public relations and marketing, including advertising, crisis communication, creative matters and research.

Working From Home Forum (GO WORK)—Link up with other members who work from home to share industry news, make contacts and stay on the cutting edge of your business.

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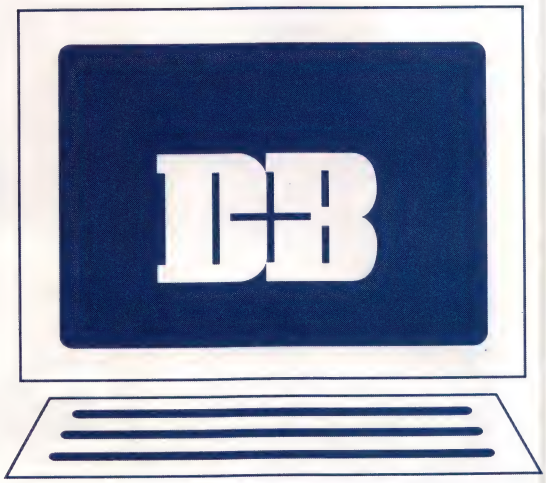

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GO OLI for more information.

by Patricia Harris & David Lyon

AVIS MANDEL

To defeat the desk monsters ask basic questions: Mayer

Clearing the Desks

Is your workspace an avalanche of paper? Clean up, if you want to.

Many businesspeople are hard pressed to find time to sort and straighten the blizzard of paper that buries their desks. According to Priority Management Systems, a management training company, the average desk worker lets 36 hours of work pile up on the desk and loses at least three hours a week looking for things. Although desktop chaos is a natural tendency, there are ways to boost productivity by handling documents more effectively.

CompuServe member Jeffrey J. Mayer has some solutions. Dubbed "Mr. Neat, the Clutter Buster" by *USA Today,* Mayer is an executive efficiency expert and author of a book that several CompuServe members testify changed their lives: *If you haven't got the time to do it right, when will you find the time to do it over?* (Simon & Schuster/Fireside, 1990). In April of this year, he published a follow-up, *Winning the Fight Between You and Your Desk* (HarperCollins), which focuses on computer hardware and software tools for organization.

To clear the decks, Mayer suggests creating a "master list" on a notebook pad. He advises picking up each piece of paper on the desk and asking some basic questions: What is it? Why do I have it? What am I going to do with it?

"If you can't come up with some really good answers, throw it away," he says. In about 20 minutes, your "keeper pile" will shrink by half, and your garbage can will be overflowing. Then return to the keeper pile and decide what to do with each remaining piece—file it, route it, record task information from it on your master list or pitch it. "It's just that simple," he says.

PERSONAL ENTERPRISE

The approach works, attests George Berman, a PR and Marketing Forum (GO PRSIG) member, who read *If you haven't got the time...* when it first appeared. "I've been a believer ever since," he says. "I keep two sets of files: a 'central file' to which my whole office has access and 'working files' in my desk. Every piece of paper that hits my desk is either acted upon or filed before it grows roots. At any given time, I have one file folder and material relating to that—nothing else—on my desk."

That gleaming desktop puts him in good company. Tee Houston-Aldrich, a Priority Management vice president, notes that a clean desk is a signature of top executives, although their assistants may be the ones who deserve the credit.

Each January, Priority sends a "Desk Stress" test to its clients to mark National Clean Off Your Desk Day. If there are 10 or more things on your desk, you should beware of imminent Desk Stress. The test and Priority's advice for cleaning up your act are reprinted in the January 1993 issue of *Making It on Your Own,* available in the Working From Home Forum (GO WORK), Library 1, "General Information," as MAKEIT.193 (42,747 bytes).

Among the questions on the Desk Stress test: Can other people find items on your desk if you aren't there? A bit of advice: Keep your in-basket out of sight so you won't be tempted to respond to items as they're put in the tray. To be most productive, you need to remain focused on the project at hand.

Desk-jockey CompuServe members have some other ideas for coping with a deluge of information. One approach is to avoid acquiring lots of loose paper. Berman keeps a book with permanently bound pages with him at all times. If he has to call someone, he writes the name and number in the book and makes the call. Says Berman, "It's guaranteed that I'll need that number again the next week, and there it is." He dates the pages and keeps books for at least seven years. Berman admits that he has done some "archeological digs into the old books from time to time," but says it beats plowing through random heaps of contact information.

Member Lawrence F. Vogel found that the real culprits in messy desk syndrome are info-bits unrelated to a project and hence

continued on Page 38

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"She started it!"

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continued from Page 36

lacking a logical home file. His solution is twofold: He keeps miscellaneous notes in a large word-processing document—an electronic shoebox of sorts. But Vogel notes that he can perform text-string searches for phone numbers, notes, names—whatever. He also keeps a basket for paper notes that he sorts through weekly, discarding as much as possible.

Several members advise that items never should be replaced in an in-basket, or it will become a holding box. Bethany Leigh of the Legal Forum (GO LAWSIG) keeps most paper from ever reaching an in-basket. She reviews both business and personal mail over a trash can, tossing junk mail without opening it. "Three other 'bins' —Read, Route and File—handle the rest of my mail. If the Read becomes an Answer, I file the Answer and Read together," she says. Leigh doesn't accrue call-back slips. She either calls immediately or punches the names and particulars into Lotus Agenda to remind her to call later.

PERSONAL ENTERPRISE

Working From Home Forum member Walter Jeffries tackled clutter head-on for his whole office. He wrote a multiuser "electronic notebook" to file and find notes easily from different computers. Instead of posting scraps of information on the wall or stuffing them in file drawers, he either types or copies notes (especially e-mail) into the notebook for easy access later on. Jeffries uses an Excel spreadsheet to keep track of things to do, adding to it by priority level or due date. Every day he does the things on the top of the list.

He also wrote a multiuser database to track more than 70,000 customers and prospects. Explains Jeffries, "Every time we talk with someone, we make notes so that any of us can pick up the customer, and we don't have to go look on someone else's desk for information."

Jeffries advocates using e-mail whenever possible because it is "efficient, fast and cheap." Even better, it's easier to file.

Many habitual just-heap-it-on-the-desktop filers cringe at the thought of losing their visual piles to cyber-tidiness. The accumulation of paper has a familiarity that can be comforting. Explains Jeffrey Mayer, "For most of us, the junk on the desk is our follow-up system—if I see it, I'll remember to do it. Or I'll put those Post-It notes on the wall until they look like butterflies."

But Mayer is convinced that unscheduled tasks never get done. "Sooner or later, a disaster shows up: There's a call or a knock at the door and somebody asking, 'Where's that report?' You have to drop everything to get it done," he says.

But some proprietors of messy desks aren't convinced that a cleanup is either possible or necessarily beneficial.

Ira Flatow, a science broadcast journalist and a member of the Journalism Forum (GO JFORUM), contends that science writers easily have the messiest desks in any newsroom. The explanation he offers is that science writers not only get all the mail everyone else gets but also dozens of research journals. Personal computers, he says, make things worse because they make gathering information easier—information that inevitably finds its way from disk to desk.

He still keeps tiny slips of paper everywhere because he finds that hard copy notes are better than cyber ones. But Flatow reserves special blame for the laser printer: "In the old days, you hated to print out loud, ugly, dot-matrix trial copies. But now you can make beautiful laser mock-ups, first drafts —whatever— by the thousands."

What to do with all that paper? Flatow says to let it be. "I vote for those who say, 'Once a messy desk, always a messy desk.' The problem lies not in the soul of the new machine but in the psyche of the old brain."

Patricia Harris and David Lyon are free-lance writers based in Cambridge, Massachusetts. Their CompuServe User ID number is 75300,316.

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Electronic 'In' Boxes and Other Organizing Uploads

The following shareware, freeware and demos of programs available in forum libraries can help you get a handle on desk organization:

IBM PC AND COMPATIBLES:

WhizNotes 1.2—Super-notepad helps you organize your tasks, take notes, prepare documents and reorganize your thoughts. Borland Programming Languages Forum C (GO BCPPWIN), Library 10, "Windows Programming," WHIZNT.ZIP (295,520 bytes).

Calendar for Palmtop—A 1-2-3 macro worksheet for the HP95LX palmtop computer. Allows easy input of daily and weekly entries into a six-month calendar. Hewlett-Packard Handhelds Forum (GO HPHAND), Library 7, "95LX General," 95CALN.ZIP (26,371 bytes).

Executive Address Book—Version 3.05 maintains a Rolodex and has separate sections for restaurants, hotels, rental cars and more. Prints pages to fit every size address book and organizer. IBM Applications Forum (GO IBMAPP), Library 6, "Business Applications," EXADB3.ZIP (301,895 bytes).

Achievement Planner 3.0—Set of personal organization tools including conflict-detecting appointment calendar, multiple-address-book contact manager, and project planner linked to day planner and to-do lists. IBM Applications Forum, Library 6, APIM3.ZIP (335,419 bytes).

Contact Plus Personal 2.5—Contact manager with import capability, provides unlimited date/time stamped notes, letter and call history, phone call timer, calendars and more. IBM Applications Forum, Library 6, CPLUS2.ZIP (300,164 bytes).

ReporTrac—Calendar and report-tracking program. IBM Applications Forum, Library 6, RT.ZIP (295,194 bytes).

Executive Organizer—Day planner complete with daily tasks and appointments, client database with notes, expense tracking, billable and nonbillable time tracking and more. IBM Applications Forum, Library 6, EXORG.ZIP (463,249 bytes).

MyNotes 1.2—Note organizer database program with built-in word processor. IBM Applications Forum, Library 7, "General Applications," MYNO12.ZIP (187,285 bytes).

TMC Calendar and Phone Book—Calendar with monthly notes display, phone and address directory, phone-dialer and more. IBM Applications Forum, Library 7, TMC21A.ZIP (229,548 bytes).

Mom for Windows 2.0—Personal information manager includes a calendar; events database with alarms; and name, address and phone database. IBM Applications Forum, Library 7, MOM20.ZIP (1,201,792 bytes).

ReFile—Document management system for filing and retrieving reference articles and producing formatted bibliographies. IBM Applications Forum, Library 7, RFL303.EXE (204,354 bytes).

Address Controller 9.32—Address and phone manager for business or personal use. Prints labels, index and Rolodex cards, and several phone and address books. IBM Applications Forum, Library 9, "Membership/Mail," AC933.EXE (142,940 bytes).

Address Manager—Demonstration version of Custom Software Design's Address Manager. IBM OS/2 Users Forum (GO OS2USER), Library 4, "Application Quest," ADDEMO.ZIP (271,073 bytes).

Little Black Book 1.21—OS/2 multithreaded address book and dialer that prints mailing labels, address book pages and card files. IBM OS/2 Users Forum, Library 4, LBB121.ZIP (158,592 bytes).

Infodex 1.01—Multipurpose database can be used as a notepad; keeps track of names, addresses, phone numbers, software, books and more. IBM Systems/Utilities Forum (GO IBMSYS), Library 7, "Desktop Utilities," IDX101.ZIP (272,829 bytes).

FONEFILE—A complete name and address database program. With its optional Terminate and Stay Resident mode, FONEFILE can be installed into your computer's memory and remain available in the background, no matter what program you're using. *PC World Online* Forum (GO PWOFORUM), Library 5, "Top Shareware," FONEFI.ZIP (74,276 bytes).

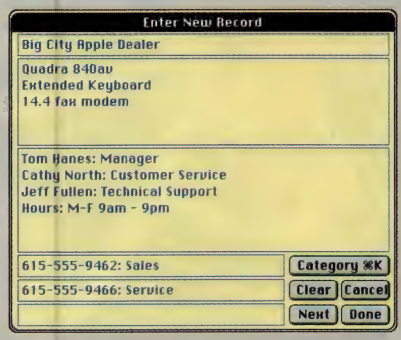
PhoneMaster 1.9d—Enables your computer to organize your address book and dial your phone. Includes reminder buttons. Windows Shareware Forum (GO WINSHARE), Library 3, "Communication Applications/Utilities," PMASTE.ZIP (399,683 bytes).

Subject Organizer 2.5—Organize your notes, papers, lists, articles and more in up to 20 subjects. Zenith Data Systems Forum (GO ZENITH), Library 6, "DOS Applications," SUBJCT.ZIP (65,885 bytes).

Black Book Plus 3.0—Electronic "black book" address database prints envelopes, labels, phone books, postcards, index and rotary cards. Zenith Data Systems Forum, Library 6, BLAKBK.ZIP (120,330 bytes).

MACINTOSH/APPLE:

My Personal Calendar—Calendar maker and day planner can be formatted in unlimited sizes. Macintosh Applications Forum (GO MACAP), Library 3, "Databases," MY.SEA (158,464 bytes).



Keeps electronic lists: Address Book 3.0

Address Book 3.0—Shareware information manager that keeps addresses and phone lists. Features catalog, index and search capabilities. Mac Applications Forum, Library 3, ADDRES.SEA (196,608 bytes).

Contacts 1.4—Helps organize your business and personal contacts, allows you to keep track of events related to each contact. Macintosh Hypertext Forum (GO MACHYPER), Library 14, "Personal Databases," CONTAC.SEA (42,496 bytes).

Filing Stack Package—Contains an address and a phone number stack linked for easy use. Macintosh Hypertext Forum, Library 14, TECH.SEA (48,000 bytes).

Calendar Master 3.0.1cs—A flexible calendar-making stack. Make any number of months at a time. Macintosh Hypertext Forum, Library 14, CALEND.SEA (65,408 bytes).

Phone Stack 1.1—Compact personal database for names, addresses, phone numbers and notes. Prints lists and mailing labels. Macintosh Hypertext Forum, Library 14, PHON12.SEA (21,504 bytes).

PowerNotes 2.0.1—Notebook and organizer for PowerBooks and Macintosh computers. Features import and export functions, support for graphics and multiple topic organization. Macintosh Systems Forum (GO MACSYS), Library 7, "Utilities," POWERN.SIT (18,048 bytes).

Automatic Calendar—Self-dating calendar can display and print years in advance. Microsoft Excel Forum (GO MSEXCEL), Library 2, "Excel for the Mac," CALEND.SEA (22,272 bytes).

by Martha Barnette

VERONIQUE CANTERO

In Other Words

If you don't speak the language, translators can help move your text into another land's tongue.

Now that communications technology is bridging the distance between far-flung places, it's more important than ever to find good translators to bridge the *language* gap that often results.

Whether you're advertising in overseas markets, seeking multilingual documentation for software, or simply wanting to get the gist of a journal article in a foreign language, choosing the right translator will help you communicate effectively and efficiently in the global village.

Use the wrong translator, however, and you'll risk finding out how much actually can be "lost in translation"—and not just in terms of style and nuance. A poor translation can cost you time, money, credibility, and prestige. Mary Jo Kostya, an editor at *Macintouch*, a Swiss computer magazine, can attest to that. She recently received a press release from a California computer company that was translated into such bad German, "it had me rolling in the aisles," she says. As a result, the company's promotional effort had the opposite effect: "The message I got was that they were either trying but not hard enough or just very trying!" says Kostya.

Or consider the case of the U.S. manufacturer who planned to market a line of refrigerators called the "MR-2" in France. Thanks to a sharp-eyed translator from WORDNET Inc., an Acton, Massachusetts, translation agency, the manufacturer was spared the embarrassment of advertising a product with a name that sounds a lot like a common French obscenity, says WORDNET's Lee Chadeayne, who regularly hones his translation skills in the Foreign Language Education Forum (GO FLEFO).

So how do you find the right translator for the job?

First, online experts say, carefully evaluate your needs. If it's a large project, such as translating a software manual into 15 languages, it's probably economical to hire a translation agency. "You talk to one coordinator for all languages, and you don't have to worry about contacting and supervising 15 translators," says Michael Wahlster, who

Martha Barnette is the author of a lighthearted look at language and word origins, A Garden of Words *(Times Books/Random House). Her CompuServe User ID number is 75300,3140.*

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▼
Changing French or Greek to What You Speak
▼
Self-Publishing Gets Easier, p.44

Multiple-Language Support Introduced

If you've ever conversed online in a language other than English, you may have felt a little tongue-tied because the electronic format didn't let you use a tilde *en español*, a grave accent *en français*, or an umlaut *auf Deutsch*.

That's no longer a problem for many speakers of foreign languages, however, thanks to CompuServe's new extended character set support, which enables users to type exactly *le mot juste*, diacritical marks and all.

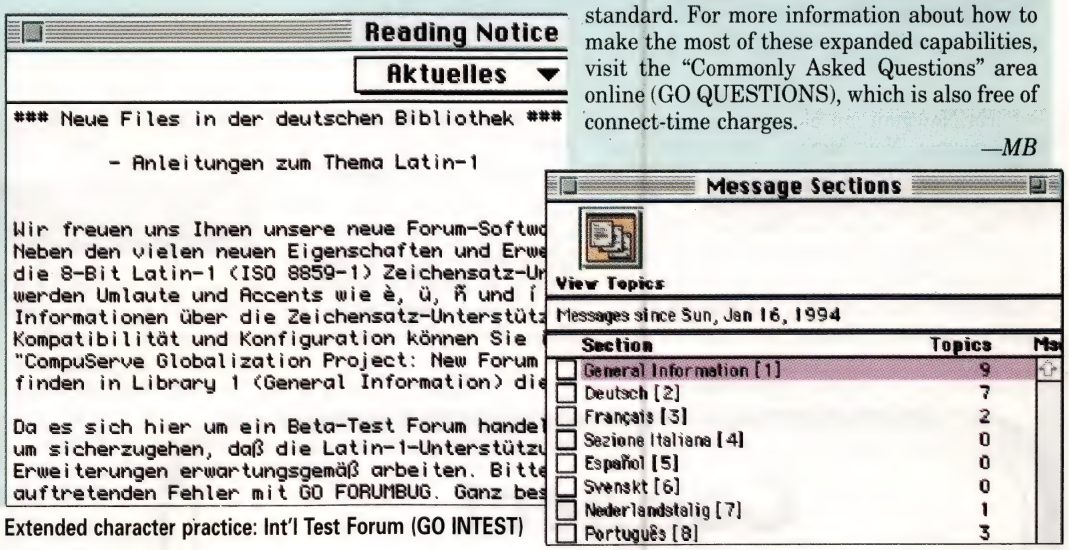
In the past, CompuServe users depended on the English alphabet to write words in other languages, and created their own makeshift diacritical marks, such as an apostrophe for an acute accent mark, or two dots next to a vowel to signify an umlaut. But with CompuServe's new international character set (Latin-1 ISO-8859-1) support, users can type such extended characters as inverted question marks, circumflexes and cedillas, as well as the Yen and British pound currency signs.

With these extended characters, CompuServe users are communicating more effectively than ever in Danish, Dutch, English, Finnish, French, German, Icelandic, Irish, Italian, Norwegian, Portuguese, Spanish and Swedish. Support for extended characters was rolled out in all CompuServe forums in early March after initial availability in CompuServe Mail, CB Simulator and selected forums and menus.

The move to extended characters is part of CompuServe's Globalization project, an ongoing effort to expand the Information Service's capabilities to better serve the needs of its worldwide membership. This effort includes not only the introduction of extended characters, but also increased amounts of local language support for CompuServe products and services. Initially, such support is being provided in German and French, including German and French versions of CompuServe Information Manager, top-level menus and other online text in German or French, as well as translated help files and error messages. Support for additional languages will be added as CompuServe's international membership continues to expand.

To use extended characters, download the most recent version of CompuServe Information Manager from the CompuServe Software area (GO CISSOFT). Some versions of third-party software packages, such as TAPCIS 5.42, may also support CompuServe's extended character set (Latin-1 ISO-8859-1) standard. For more information about how to make the most of these expanded capabilities, visit the "Commonly Asked Questions" area online (GO QUESTIONS), which is also free of connect-time charges.

—MB



Extended character practice: Int'l Test Forum (GO INTEST)

worked for a Tokyo translation agency before becoming a free-lance translator in Pullman, Washington.

For less extensive work, you may prefer the more individualized attention of a free-lance translator who concentrates on just a few subject areas, says Nicholas Hartmann, a Chicago translator whose specialties include patents, materials science and aviation. If the relationship turns out to be ongoing over several months or years, an individual translator essentially can make yet another "specialty" of a particular customer's needs, he says.

When seeking a translator, be sure to honor "the cardinal rule": Insist on a native speaker of the language into which you want your text translated. "Otherwise, you could get small errors that look OK on the surface, such as 'All the water in this hotel has been personally passed by the manager,' " says German and Spanish specialist Matt Hammond, who teaches translation at California's Monterey Institute of International Studies.

In addition, a native speaker will point out subtle cultural quirks that may help strengthen your presentation or spare you the embarrassment of a really bad blooper, says Doris Ganser, owner of Transimpex Translations agency in Kansas City, Missouri. They can alert you, for example, to an upcoming national holiday that could be worked in to spice up your advertising copy, she says. Or warn you that the clever English turn of phrase you're so proud of will fall flat in translation—as happens, for example, when someone tries to use the Biblical imagery of beating "swords into ploughshares" in a language whose speakers are unfamiliar with Judeo-Christian traditions.

Next ask the translator for previous work samples, recommendations from former clients and, if feasible, a personal interview to help determine whether he or she has the writing skills and any specialized technical knowledge the job requires. Inquire as to what equipment and resources an applicant has: What kind of computer and word processing programs does he use? Can she provide formatted copy or just text? What kind of reference resources are available to him? Does she have a fax machine and modem?

Disclosing information about rates for translation services is a touchy topic, especially in the wake of a U.S. Federal Trade Commission investigation of the American Translators Association, begun after the Arlington, Virginia-based association's newsletter published a list of prevailing rates, recommending that translators consider them when determining charges—a move that some contend constitutes price-fixing.

In general, however, agency fees tend to be higher than individual free-lancers', ranging from 3 cents to 45 cents a word, according to WORDNET's Nancy Warner. "There is no universal standard for the industry because the materials translated are so vastly different," she says. Costs rise if you need translation into obscure languages, or those such as Japanese or Arabic that require non-Roman alphabets and special word processing software. Requests for typesetting, formatting text for publication or unusually tight deadlines will push fees still higher.

However, translators who work in the same field and language are likely to charge roughly comparable rates. Wahlster suggests asking several translators for estimates to get an idea of the range. "Make sure they see a page or two of the source so they can assess the degree of difficulty," he adds.

But don't get too caught up in looking for a bargain, both buyers and sellers of translation services advise. "The amount of money spent on translations is minor compared to the cost of a project and the potential damage a poor translation can have on it. 'Penny wise, pound foolish' comes to mind," says

How to Find Translators Online

Need to puzzle out equipment instructions from a foreign-language manual? Trying to understand an overseas company's report to stockholders? Want to know what your long-lost aunt in Hungary had to say in her letter? CompuServe's Foreign Language Education Forum (GO FLEFO) offers a world of experts who can help.

Start your search for a professional translator in the forum's Library 11, "Translators," says Sysop Jerry Ervin. The file MAST.ZIP (71,424 bytes) contains the professional profiles for hundreds of translators, along with their areas of linguistic expertise, specialties, country of birth, rates, equipment, educational background and other information. Updated monthly, this text file is produced cooperatively by the forum and the American Translators Association.

You also can post a request in Section 11, "Translators." Or seek out fellow forum members with an interest in translation by checking the forum's membership directory using the keyword TRANSLATION when you search by member's interests.

If you simply want a quick, casual rendering of a foreign word or phrase, or to unravel a few lines of Latin poetry, try one of the forum's message sections devoted to specific languages, such as Spanish/Portuguese (Section 1), French (Section 2), German/Germanic (Section 3), Latin/Greek (Section 4) and Italian (Section 9), or the Potpourri/Polyglot area (Section 0), where experts regularly field questions about languages as diverse as Swahili, Amharic and Tagalog.

If your request is reasonably limited, the forum's professional translators do occasional pro bono translating, Ervin says. A case in point: A member uploaded a handwritten note in Russian as a GIF file, and asked anyone who could (and would be willing to) to translate it for him. "He got it in a matter of days," says Ervin.

—MB

Patricia Newman, an electrical engineer in Albuquerque, New Mexico, who specializes in Russian and German translations. " 'Comparison shopping' among translators is as dangerous as comparison shopping for any service, such as medical treatment," says Hammond. "You might get lucky and get an inexpensive, good person. But why would a good person come cheaper?"

Once you've decided on a fee, there are several things you can do to get more out of the dollars you do spend:

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Be specific about what you want. Tell the translator the specifications of the project as clearly as possible—exactly what you want out of the finished version, why you need it done, what audience you hope to reach. Translators can adapt their services to your needs, as long as they know what those needs are, Hartmann says.

Be prepared to answer lots of questions. Supplying a translator with supporting documentation—diagrams, illustrations, previous translations of similar texts, lists of experts to consult—helps speed the project for both of you. A good translator will probably pepper you with additional questions, but bear in mind that this means he or she is striving to ensure accuracy as well as tone and style.

Budget for time as well as money. Clients often have unrealistic expectations about how long a translation should take. Remember, says Riccardo Schiaffino, a translator specializing in the localization of computers and software in Italy, "hurry breeds mistakes, and the translator is in a much better position to judge how much time is needed for a job."

Consider how text length will change. If the finished text is intended to fit a given layout on a page, you should budget for space as well as time, notes Chadeayne. For example, translating from English into French, Italian, Spanish and Portuguese expands the copy by 15 percent to 20 percent. For more tips, check out the 10-page-booklet *A Consumer's Guide to Good Translation*, whose authors include CompuServe members Hartmann and Ben Teague. It's available for $3 from the American Translators Association (703/412-1500).

Never underestimate the power and effectiveness of a careful, well-crafted translation. "I'm sure everyone has tried to decipher how-to instructions in Japanese-English at one time or other," observes Kostya. "They should remember that feeling when having translations done themselves."

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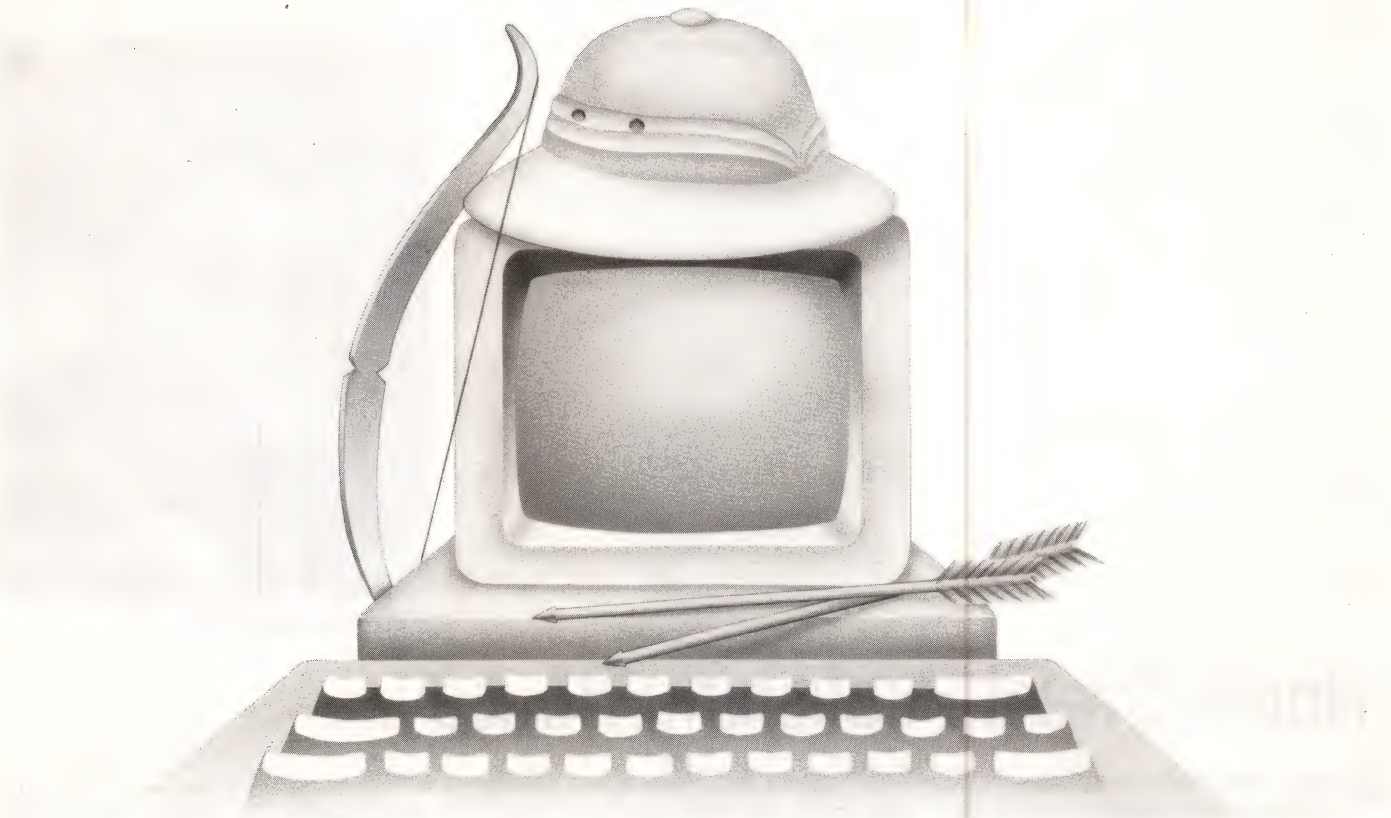

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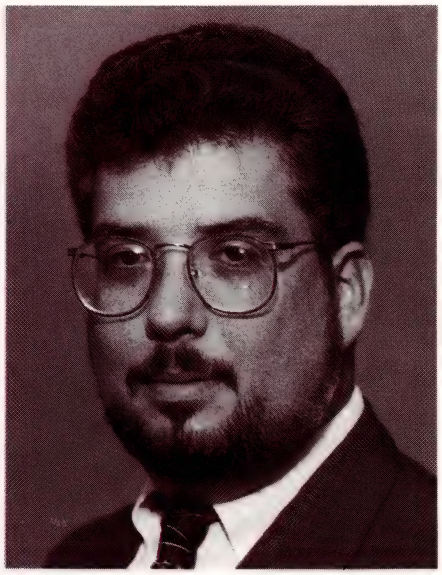
by John Edwards



The book business beckoned: Case

Home Sweet Publishing House

Your World's Greatest Novel may *not* need Humongous Book Corp.

For many years self-publishing, like do-it-yourself brain surgery, was an idea that sounded both impractical and downright scary. But fundamental changes in book publishing technology, including low-cost desktop publishing systems and online research and business networking resources, are helping to transform self-publishing into a practical and potentially lucrative proposition.

Albert Case, who regularly joins other self-publishers in the Literary Forum's (GO LITFORUM) Section 2, "Markets/Self-Publishing," became disenchanted with traditional publishers in the 1980s, shortly after he wrote the textbook *Information Systems Development: Principles of Computer-Aided Software Engineering* for Prentice Hall. "While it was a rewarding experience and an ego-booster to see my name under the Prentice Hall logo, the frustration mounted," he states. "Nearly 100 percent of the sales made for the book were orders arranged by me through speaking engagements, seminars and so on."

In 1989, Case joined with an accountant in the Troy, Michigan, area to form a publishing partnership. The pair found inspiration in the success of the late Howard Jarvis, who in less than one year in the mid-1970s sold more than 1 million copies of *The Lazy Man's Way to Riches*. "I realized that there was an amazing suite of niche markets starved for information that could probably never be saturated," he says.

Case's company publishes books covering a wide range of topics, including personal money management, business advice, literature and even poetry. "We realized that it could take quite a while to get several books written, so we started an anthology business, publishing the poems and essays of others just to get started," says Case, whose full-scale literary press publishes a quarterly literary magazine and three hardcover anthologies each year. In addition, several softcover booklets are in print and more are in production.

Case's self-publishing business is prosperous enough to comfortably support his family. "It takes so little time and management that my partner and I still keep our day jobs," he states. Case works as a management consultant but is planning to retire next year at age 40.

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Kathleen Tinkel, a sysop in the Desktop Publishing Forum (GO DTPFORUM), notes that making the leap from author to self-publisher isn't the perilous plunge it once was. "These days, an author is often asked to produce his or her own book for a conventional publisher—at least to provide text on disk or via modem," says Tinkel, a Westport, Connecticut-based writer and graphic designer, whose articles have appeared in such publications as *MacWEEK, MacUser* and *Publish*. "It doesn't take much of a leap to finish the process and output the book pages in a camera-ready format."

But Tinkel notes that a book's production is only the first step in a two-stage process. Marketing is at least as important as the literary and physical creation. "All the typesetting, page layout, output and printing knowledge in the world won't get a book sold," she says.

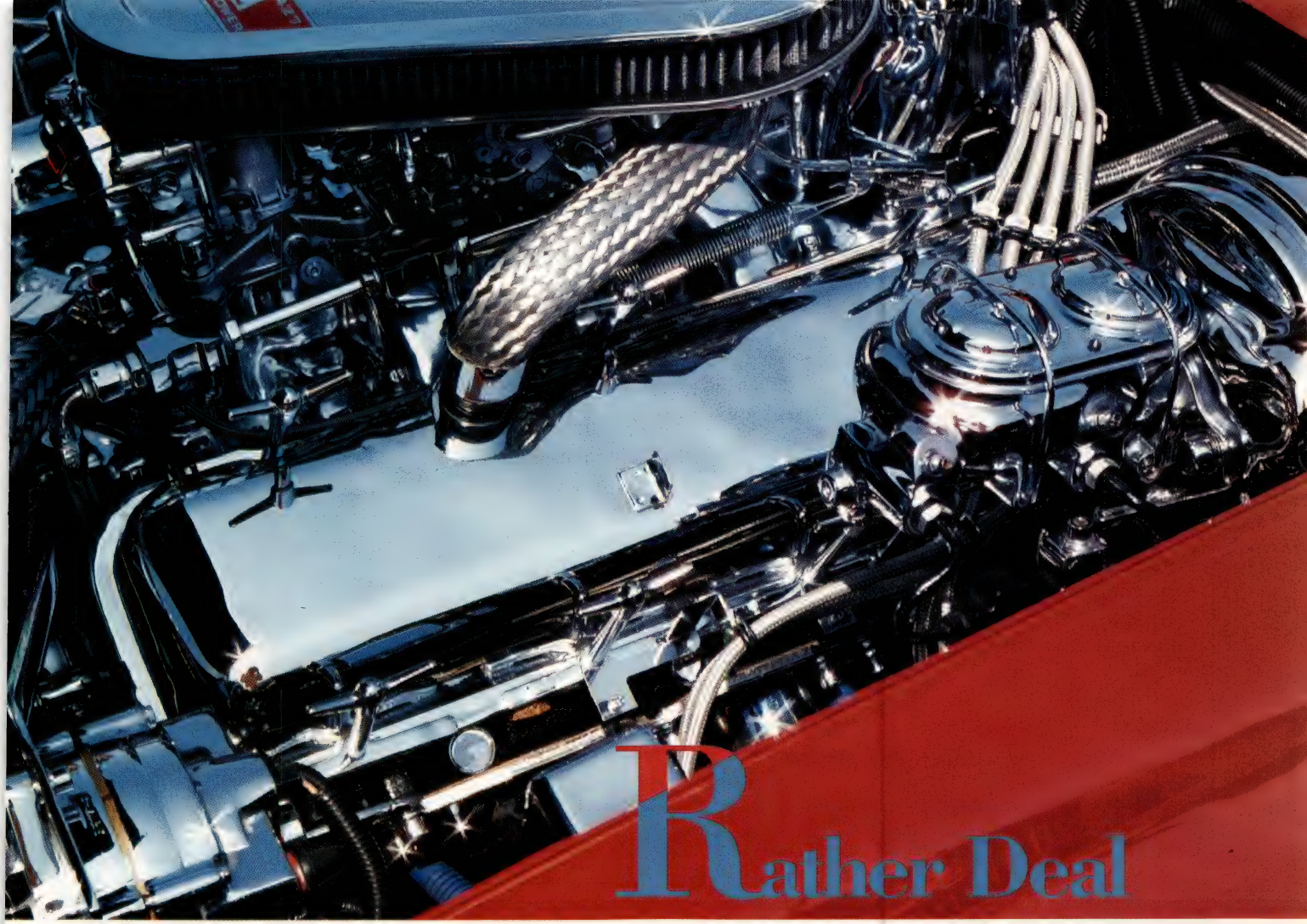
Walter Jeffries, a self-publisher located in Montpelier, Vermont, and a member of the Working From Home Forum's (GO WORK) Section 10, "Independent Writers," feels that the key to successful self-publishing lies in intelligent marketing. "You should send out a lot of sample copies and press releases to writers and magazines," he says. "The free publicity of a review is worth many times the value of an ad." Jeffries, who operates his self-publishing business under the name BlackLightning Publishing, also advises nonfiction self-publishers to aggressively promote their books to user groups, clubs, professional associations and other organizations in the text's area of interest.

Jeffries notes that while free publicity can be a powerful marketing tool, self-publishers also have to be prepared to spend money on advertising. One good medium for advertising is the Classified Ads on CompuServe. "We have a bunch of small 'teaser' ads that tell readers to reply if they want more information. We get a lot of sales in that way," says Jeffries, who also suggests getting an 800 number. "It costs very little in monthly fees. We actually pay just 13 cents per minute on our 800 line. The added sales make it worthwhile."

Advertising, copy-editing and layout inevitably concern self-publishing writers whether they like it or not. "Most writers don't like messing around with the business part of their craft. Unfortunately, it's the business parts that will make it a success or not," says Robert Kirby, a Springville, Utah-based Literary Forum member who's compiling a collection of humorous police-related columns he wrote for a local newspaper.

Peter Goodman, a Literary Forum member and president of the Marin Small Publishers Association, an organization of small and self-publishers in Marin County, California, is also a believer in the need for solid marketing. He notes that the real hurdle is in moving the books into stores. "If you hated being rejected at a dance party when you were in high school, just wait until you start making your moves on a big distributor or bookstore," he says.

Most wholesalers, distributors and bookstores simply don't want to do business with one-book accounts, even if the book in ques-



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The Write Questions

Dick Lutz, who has produced five books under his Dimi Press banner, is a Salem, Oregon-based self-publishing consultant who has never tried to offer a book to a conventional publisher. Lutz's titles include *Feel Better! Live Longer! Relax; The Running Indians;* and *Komodo, The Living Dragon.*

Lutz, a member of the Literary Forum's Markets/Self-Publishing section, believes that any author contemplating self-publishing needs to examine his or her motives before proceeding. He offers budding book moguls the following self-publishing questions:

- **Why do I want to publish a book?**
- **What do I want my book to accomplish?**
- **Who do I want to read my book?**
- **How will I reach these people?**
- **Am I prepared to run a business?**
- **Do I have business experience?**
- **Am I a self-disciplined, organized person?**
- **Am I willing and able to learn?**
- **Do I have enough time? Money? Energy?**
- **Am I self-confident?**
- **How good am I at negotiating?**
- **Am I articulate and presentable?**

"These points are for people to think about *before* they self-publish," emphasizes Lutz, who entered the self-publishing field because he wanted total control over his works.

For more self-publishing advice from Lutz, read or download the files SP1.DL, SP2.DL and SP3.DL, in the Literary Forum (GO LITFORUM), Library 2, "Market Maneuvers."

—JE

tion happens to be terrific. Says Goodman, "They'll ask themselves, 'Why won't a *real* publisher take it?' " To combat this resistance, he advises self-publishers to solicit testimonials from respected authorities in the book's field. It also helps if the book looks professional—not like it was run off of a dot matrix printer in somebody's basement.

Most smaller self-publishers eventually join forces with one or more service organizations that tie their members into marketing and support alliances. "Anyone contemplating getting into publishing should join an organization and feast on other people's experiences and suggestions," says Goodman.

As the owner of Stone Bridge Press, a small publishing house in Berkeley, California, Goodman makes extensive use of online research. "The Literary Forum is a good place to swap information and do market research," he notes. Because they publish books about Japan, he also regularly visits the Japan (GO JAPAN), the Foreign Language Education (GO FLEFO) and the Travel (GO TRAVSIG) forums. "I've downloaded mailing lists, contact names and articles relating to subjects I'm working on. I've

Why DTP Makes Self-Publishing Almost Too Easy

Desktop computers have revolutionized the book publishing industry. These days, many major publishers use PC- or Macintosh-based page layout systems to produce their books. As a result, self-publishers who buy or lease time on a high-end desktop publishing system can create books that have the exact same "look and feel" as the texts developed by multimillion-dollar conglomerates.

The technology for book production isn't very demanding, says Kathleen Tinkel, a Westport, Connecticut-based writer and graphics designer and a sysop in the Desktop Publishing Forum (GO DTPFORUM). "Simply buy PageMaker, FrameMaker, Ventura Publisher or QuarkXPress, copy the design of a book you like, lay out the pages and have the pages output," she says.

Tinkel notes that the production process includes selecting all of the necessary type styles, designing the pages, pouring the text into the layout chapter by chapter, proofing to a laser printer and finally sending the files to an imagesetter that generates the camera-ready art the printer will use to print the book. "For low-quality books, you could even produce the pages on a laser printer," she says.

Tinkel believes that the key ingredient in book production is knowledge. To develop a quality product, users have to be aware of the various components that go into a book, including margin settings, chapter layouts, typeface designs, font sizes and numerous other considerations. Fortunately, all of this information is readily available. "You can read up on these things or call a few book printers and ask careful questions. It's not a big deal." The importance of getting professional advice can't be understated. "Too many self-publishers end up producing books that look like typewritten pages," says Peter Goodman, a Literary Forum member (GO LITFORUM) from Berkeley, California, and president of the Marin Small Publishers Association. "Proper book design has a lot of rules and conventions, and books that don't apply them look unprofessional and will have sales troubles."

Indeed, those who team up with field specialists can save themselves unnecessary production costs. In addition, the result will be a professional-looking book that's attractive and comfortable to read. "If you're not a graphic designer, find a professional to help you with your book cover —and find a designer who specializes in books and not someone who does menus or business cards," says Goodman, who recommends that self-publishers hire a professional editor-proofreader to check for grammatical, syntactical and other errors.

To find an expert, consult with other self-publishers, ask printers for recommendations or seek help in the appropriate CompuServe forums.

—JE

also thrown out general queries for response, such as, 'How much does it cost to get from Narita Airport to Shinjuku in downtown Tokyo via the Narita Express?' "

Computer book author John Woram, a Rockville Centre, New York-based Literary Forum member who has written for such major publishers as Random House and Bantam, thinks the best opportunities for self-publishers exist in specialized markets —areas in which big publishing houses have little experience. "I'd suggest that an author who writes a book that may not float well in the mainstream should beware of getting launched by a mainstream publisher," he says. "These folks just don't know how to paddle a book through other channels."

Woram is considering self-publishing a collection of travel essays on the human history of the Galapagos Islands. "Who would buy such a book?" he asks. "Probably not the crowds at B. Dalton and Barnes & Noble. Which means that despite a good track record in my previous specialties, most major publishers' eyes glaze over as they fall asleep into their martinis."

But whatever area the self-publisher decides to specialize in, Peter Goodman says the experience is definitely worth pursuing —if one has the fortitude. "It's like leaping off an 80-foot cliff—dangerous but nevertheless exhilarating," he says. "There are many people who take the plunge and survive."

John Edwards is a contributing editor of CompuServe Magazine. *His CompuServe User ID number is 70007,412.*

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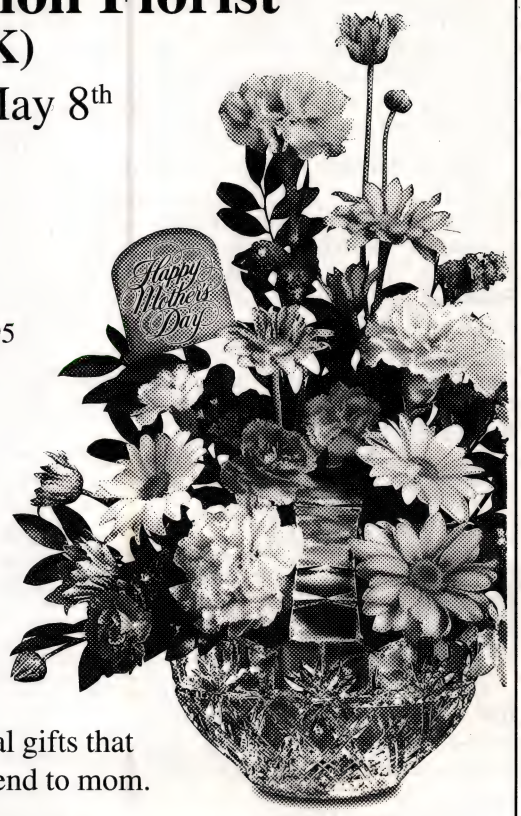

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* * * * *

Flicker Fun—The Graphics Support Forum (GO GRAPHSUP) has consolidated its selection of computer-generated animation players in Library 11, "Animation Players." Formats played vary by player, but popular formats include FLI, FLC, AVI and ANI. Available programs include a speedier Dave's Flic Viewer; New Ani Player, which plays animations created with PC Animate Plus and 3D Workshop; Media BlastOFF!, a Windows multimedia player that handles numerous animation, graphic and sound formats; and Macintosh FLI Viewer, a Mac player for Autodesk Animator files.

DFV.ZIP (107,130 bytes);
NEWANI.ZIP (28,493 bytes);
MB10.ZIP (1,335,812 bytes);
MACFLI.SIT (32,896 bytes).

Search the forum's libraries (or a File Finder, GO FILEFINDER) with the appropriate file extension (such as FLI or ANI) as your keyword for playable animations.

Whole-Person Health—The Holistic Health Forum (GO HOLISTIC) has opened, with many library files pertaining to this preventive, natural approach to well-being. Library 3, "Nutritional Therapy," includes a relational database on food hazards and contaminants, an article on the role fruits and vegetables play in preventing disease, and a summary of nutritional measures that may help those suffering from Chronic Fatigue Syndrome.

FD_HAZ.ZIP (258,942 bytes);
CANCER.TXT (3,601 bytes);
CFS.TXT (3,827 bytes).

Library 4, "Herbs & Plants," has a popular hypertext program describing herbology, herbs and recommendations for various health conditions.

HERB4B.ZIP (214,349 bytes).

Library 7, "Chiropractic," features an IBM PC program that graphically demonstrates massage techniques such as Shiatsu, foot reflexology and acupressure for pain relief.

PAIN20.ZIP (141,652 bytes).

Library 10, "Healing and the Mind," includes a three-file series on Actualism, a powerful, calming meditation technique that enlightens mental, emotional and sensory awareness.

ACTU1H.TXT, ACTU2H.TXT and ACTU3H.TXT (7,835 bytes; 5,379 bytes; 5,540 bytes).

Get a Load of BBSes—Looking to explore the world of local and internationally oriented bulletin board systems? Stop by the IBM Bulletin Board Forum's (GO IBMBBS) Library 8, "BBS Notices," for almost-daily announcements of new BBSes, and Library 7, "BBS Listings," for updated files cataloging these popular cyberspace outposts. Text rundowns in the latter library include *The BBS List*, Sonya Chang's regular publication of worldwide BBSes; the USBBS National BBS list for the United States; the National Business/Professional BBS list; *Galacticomm's Guide to Public Online Services*; and the Black Bag Medical BBS list. (File names are most recent uploads at press time; browse for updates.)

THELIS.ZIP (50,000+ bytes);
USB116.ZIP (110,000+ bytes);
BUS_PR.ZIP (13,000+ bytes);
GUIDE.ZIP (33,000+ bytes);
ME1193.ZIP (12,000+ bytes).

Invention Convention—Inventors are gathering in the new Innovations & Ideas Forum (GO IDEAS) to learn how to turn their brainstorms into marketable products. Library 1, "General Info & News," includes archived threads on doing patent searches on a tight budget and what it means philosophically to be an inventor.

PTSRCH.123 (6,434 bytes);
MINES.123 (12,069 bytes).

Library 3, "Protection & Laws," has several files dealing with the notion of intellectual property: an IP strategy for a new business, working with an IP lawyer and the differences between trademarks, patents and copyrights.

INTPRS.EWF (61,303 bytes);
HTWWIP.ATY (18,917 bytes);
PATENT.TXT (3,767 bytes).

Library 9, "Ideas to Market!" contains issues of *The Guerrilla Inventor*, an electronic newsletter, including this one from early January.

GUERI2.014 (4,975 bytes).

This Month's FILE CLUSTER

What if you searched the libraries of CompuServe's hardware-specific and general-interest forums with the same keyword? You'd have the File Cluster, the ultimate round of info-surfing. This month: These kind of forms aren't filed or signed, but may drop from the sky; throw this line, you'll save one (mine?) while Riley lives his high: LIFE.

CHRIS O'LEARY

Big Blue-Green Marble—This 1992 composite NASA image of the Earth showed for the first time the global biosphere, patterns of plant life on land and in the oceans. Astronomy Forum (GO ASTROFORUM), Library 11, "Planet Earth GIFs," BIOS.GIF (181,256 bytes).

It's a Wonderful CD-ROM—A press release describing the two-disc Windows multimedia release of *It's a Wonderful Life*, with loads of supplementary materials and "exceptional" video quality. CD-ROM Forum (GO CDROM), Library 2, "Titles & New Prods," PR-LIF.TXT (5,316 bytes).

Teen Straight Talk—Excerpts from *Heart Smarts: A Teenage Guide to the Puzzle of Life*, meant to help teen-agers manage stress and volatile emotions. Education Forum (GO EDFORUM), Library 12, "Teacher to Teacher," HEART.TXT (32,546 bytes).

SimEarth Planets—For the PC version of Maxis' life simulation, a group of planets where some unusual life forms have evolved sentience. Gamers' Forum (GO GAMERS), Library 13, "Other Games," SIMESE.ZIP (119,688 bytes).

Ray-traced Rice—Hungry for Chinese food? Look at this ray-traced still life of a jade bowl with rice, wooden table top and wicker screen. Rendered with POV-Ray. Graphics Developers Forum (GO GRAPHDEV), Library 9, "POV Images," CHINES.GIF (29,437 bytes).

Can We All Get Along?—*Relate* is a PC-compatible electronic book about interacting with ourselves, others and the physical world, including 10 steps to happier relationships. Human Sexuality Open Forum (GO HSX100), Library 7, "Software Exchange," RELATE.ZIP (42,561 bytes).

Insurance Payback—An analysis of a whole life contract's investment value as compared to a certificate of deposit, tax-free bond, money market and annuity. Investors' Forum (GO INVFORUM), Library 7, "Fin'l Plan./Taxes," WL_V_I.TXT (9,539 bytes).

Choice Act—The text of the Freedom of Choice Act (FOCA), meant to limit states' power to restrict the right of abortion. Issues Forum

Library 12, "Young Inventors," includes a history of great women inventors past and present, and details of Project XL, a U.S. government outreach program designed to foster problem-solving in America's youth.

WOMEN.TXT (6,337 bytes);
PROXL.TXT (9,947 bytes).

Bucksware!—Try the Investors' Forum's (GO INVFORUM) libraries for the latest PC investment analysis software. Library 1, "Stocks/The Market," now features Capital Gainz, a portfolio manager for small investors using the "dollar-cost averaging" strategy, and a commission calculator for stocks, options and mutual funds held through Charles Schwab & Co.

CGZP32.ZIP (451,070 bytes);
SCHWB2.ZIP (33,425 bytes).

Library 6, "Real Estate," has Mortgage Analyzer, a comprehensive program with options for amortization schedules, loan qualification, refinancing and side-by-side comparisons.

MRT113.ZIP (148,102 bytes).

Library 12, "Charts/Tech. Analysis," includes RSA/2 for Windows, providing stock market technical analysis with 30-plus functions such as relative strength, moving averages and sector analysis; and Parity, a sophisticated stock charting program with 50 indicators, multiple charts and panes, and user-defined formulas.

RSA2W.EXE (155,392 bytes);
PRTYD1.ZIP and PRTYD2.ZIP (359,507 bytes; 359,900 bytes).

Mac Perusables—Check out the Macintosh Community Club Forum's (GO MACCLUB) Library 8, "Magazines/Reviews," for electronic newsletters (text-based or stand-alone documents) and other publishing surprises. Regular uploads include the *Silicon Times Report*, which covers all computer platforms and bills itself as the "original independent online magazine"; *Low-End User Magazine*, for owners of Plus, SE/30, LC or Classic Macs; *DT&G—The Electronic Journal for Design, Typography and Graphics*, Fred Showker's monthly "defusing" of desktop publishing mystique; and Adam Engst's all-things-Apple weekly *TidBITS*. Also available is a sneak preview of Bob LeVitus and Michael Fraase's new book, *Guide to the Macintosh Underground*, a collection of essays for Mac "fanatics and outlaws."

File format STxxxx.SIT (30,000-60,000 bytes);
LEU.SEA (78,080 bytes);
DT&G2.SIT (113,792 bytes);
File format TBxxx.SIT (13,000+ bytes);
MACUND.SEA (207,360 bytes).

Shareware Catalog—The Association of Shareware Professionals Forum (GO ASPFORUM) each month now uploads its massive catalog of all known PC-based shareware titles and their CompuServe locations in a Windows Help format. Check Library 7, "Finding Shareware."

SRGCS.ZIP (1,189,000+ bytes).

A subset catalog (also WinHelp format) covering only Windows shareware is also available (SRGWN.ZIP, 415,000+ bytes), as are catalog subsets for DOS, OS/2 and Windows NT shareware, shareware using CompuServe's software registration service, and shareware authored only by ASP members. Several ASCII versions are uploaded as well; browse the library for all versions.

Floating Holidays—Looking to take a sea cruise? Reviews written by Travel Forum (GO TRAVSIG) members and reprinted from *Travel Weekly* articles are available in the forum's Library 14, "Cruise Reviews." The appraisals cover everything from brand-spanking new ships sailing the Caribbean or Alaska to unusual getaways on schooners and freight steamships. One popular download is the regular rating of cruise lines' sanitation by the Center for Disease Control.

CRUISE.CDC (9,195 bytes).

Windows Pastimes—The Windows Fun Forum (GO WINFUN) has more Windows-based diversions than you can shake a modem at. Check in every couple of weeks for great card and arcade games, screensavers, sounds, artful icons, bitmaps and AVI animations. New stuff in Library 3, "Other Games/Fun," includes Dino Slot, a prehistoric slot machine with dinosaurs instead of bells and bars, and rocks for coins; FractalWeave, which creates stunning fractal images; animated CNN and *Star Trek* icons; WinRoach, hiding roaches under open windows that scurry away when the window is closed; and *MEDWAR*, a medieval wargame for up to six human/computer players, with 24 strength levels and 14 pieces such as light infantry and catapults.

DS101.ZIP (128,545 bytes);
FWVWIN.ZIP (68,992 bytes);
CNN.ZIP and STARTR.ZIP (59,078 bytes; 10,572 bytes);
ROACH.ZIP (26,456 bytes);
MEDWAR.ZIP (195,795 bytes).

(GO ISSUES), Library 1, "Culture & Society," FOCA.TXT (2,256 bytes).

Behind the Walls—Details from the book *Voices of Silence*, which chronicles six months in a Trappist monastery and the lives of its monks, who are neither silent nor stodgy. Journalism Forum (GO JFORUM), Library 8, "Papers/Magazines," MONKS.TXT (6,583 bytes).

Patenting Life—Portions of the U.S. Patent and Trademark Office's Manual of Patent Examining Procedure (*there's* a mouthful) dealing with the patentability of living things. Legal Forum (GO LAWSIG), Library 1, "Computer/Tech Law," MPEP21.ZIP (16,633 bytes).

LifeMate—This Macintosh HyperCard database includes more than 40 forms for storing and tracking data concerning cars, credit cards, doctors, insurance, licenses, wills and more. Also tracks location of original documents. Macintosh Hypertext Forum (GO MACHYPER), Library 14, "Personal Databases," LIFEMA.SEA (194,944 bytes).

Zen and the Art of Creating Life—A fascinating article about artificial life from Thomas Ray, creator of the TIERRA A-life project. Mensa Forum (GO MENSA), Library 7, "Science & Technology," ZENLIF.ZIP (44,499 bytes).

Little Orphan MIDI—A MIDI music file of "It's a Hard Knock Life" from the musical *Annie*, with an explanation of the sequence's creation and track/channel assignments. MIDI/Music Forum (GO MIDIFORUM), Library 10, "MIDI Song Files," HARDNO.ZIP (21,504 bytes).

Fido Floats—Animal life jackets? Read about these lifesavers developed by San Francisco Bay sailors for dogs and other live-aboard pets. Sailing Forum (GO SAILING), Library 6, "Outfitting & Gear," ANIMAL (5,828 bytes).

Life Imitates Film—Inspired by seeing *Schindler's List*, dozens of ShowBiz Forum members sounded off in this archived thread about religion, heritage, upbringing and life. ShowBiz Forum (GO SHOWBIZ), Library 17, "The Green Room," JEWISH.ZIP (39,909 bytes).

Searching for Bobby Fish-man—Is there intelligent life on other worlds? NASA has begun targeted searching and sky sweeps using radio telescopes around the world for any signs. This PR kit (text) explains the project. Space Forum (GO SPACEFORUM), Library 7, "Extraterrestrials?" HRMS.KIT (21,576 bytes).

DNA Up Close—A beautiful 3-D 16-color illustration of a DNA molecule. Students Forum (GO STUFO), Library 12, "Math/ Science/Tech," DNA.GIF (33,920 bytes).

Moving to the U.K.—Leaving the U.S. for England? This three-part file tells all you need to know about making the transition a smooth one. U.K. Forum (GO UKFORUM), Library 6, "Americans in UK," LIVINU.ZIP (37,449 bytes).

Annual Investing Issue—*U.S.News & World Report*'s 1993 guide to investing, with stories on bear market planning, dealing with bill collectors, "blended" life insurance and more. *U.S. News* Forum (GO USNFORUM), Library 6, "Annual Guides," MONEY.ZIP or MONEY.TXT (46,090 bytes; 132,197 bytes).

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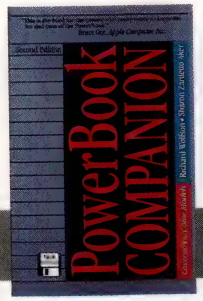
Online Book Reviews

Following are summaries of book reviews available for reading this month in *Online Today*. To read the complete reviews, use the GO commands listed at the end of each summary.

MacWEEK Guide to Desktop Video

By Erik Holsinger
Ziff-Davis Press, 1993
303 pages, $34.95 (softcover with one CD-ROM disc)

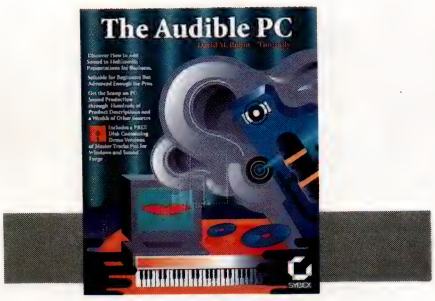
Written for Macintosh users who know little about video and filmmaking as well as for video and filmmakers who know little about computers, this book offers plain-English technical explanations and real-world examples that help both audiences acquire a working knowledge of the field, says reviewer John Edwards. *GO OLT-5950*



PowerBook Companion (Second Edition)

By Richard Wolfson and
Sharon Zardetto Aker
Addison-Wesley, 1993
395 pages, $24.95 (softcover with one 3.5-inch diskette)

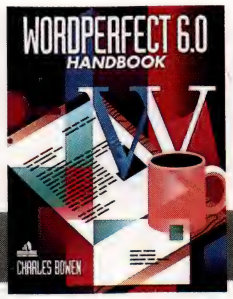
With a tight focus on how to better use the PowerBook and successfully travel with it as a work tool, this book is full of good advice, says reviewer Sharon Kahn. Best of all, it's small enough to carry with you. *GO OLT-5930*



The Audible PC

By David M. Rubin and Tim Tully
Sybex Inc., 1993
568 pages, $34.95 (softcover)

If you want your PC to sing instead of screech, as well as compose, edit and record, this is the book to get you started. Reviewer James Moran says it's ideal whether you're a pro looking for audio options or just an average PC user who wants to demystify the use of sound with computers. *GO OLT-5910*



WordPerfect 6.0 Handbook

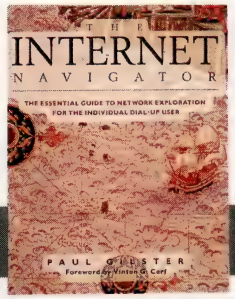
By Charles Bowen
Random House, 1993
1,006 pages, $30 (softcover)

Likening this book to a classroom course rather than a quick reference guide, reviewer William J. Lynott says the author has succeeded in blending explanations of the basic fundamentals of this powerful software package with an effective and thorough treatment of its most powerful capabilities. *GO OLT-5920*

Que's Big Mac Book (Fourth Edition)

By Neil Salkind and Mark Bilbo
Hayden Books, 1993
1,078 pages, $29.95 (softcover)

It's big, it's about the Mac and it contains everything you ever wanted to know about Macintosh computers, including a few things most users would rather not know. Reviewer Anthony Watkins says it should be called *Encyclopedia Macanica*. *GO OLT-5940*



The Internet Navigator

By Paul Gilster
John Wiley & Sons, 1993
470 pages, $24.95 (softcover)

Calling this one of the best books on the Internet, reviewer Brian D. Monahan praises it for its thorough and detailed explanation of how to take advantage of this system's myriad and complex features. *GO OLT-5900*

Maintain and Repair Your Notebook, Palmtop or Pen Computer

By Stephen J. Bigelow
Windcrest/McGraw-Hill, 1994
300 pages, $18.95 (softcover)

If you're intrepid enough to attack the innards of a computer with a soldering iron, this book offers solid, basic information for beginner and intermediate hardware users. However, reviewer Robert Sanchez says the editors should have better highlighted necessary safety warnings. *GO OLT-5970*

Total Recall: The Ultimate Guide to Memory Management

By Gary Saxer and Ellen Sander
Osborne/McGraw-Hill, 1993
222 pages, $19.95 (softcover)

This is a text for people who are intent on maximizing their memory use, enjoy exploring memory by tweaking their memory managers, and are always searching for that extra bit of usable space in which to stuff a program. If you want to understand all this and learn to apply it to real-world problems inside your own machine, this book is hard to beat, says reviewer Paul A. Gilster. *GO OLT-5960*

Buy a Bed on CompuServe

DIAL A MATTRESS changed the way bedding is sold in the USA by using the telephone. 1-800-M-A-T-T-R-E-S turned the bedding industry upside down. Almost 300,000 customers "left off the last S" for savings last year. Gross sales have grown from $400,000 to $40 million in five years. It's a fast, easy and convenient way to get the best bedding from Sealy, Serta or Simmons without leaving your computer.

For more information or to buy a bed just GO BEDS or dial:

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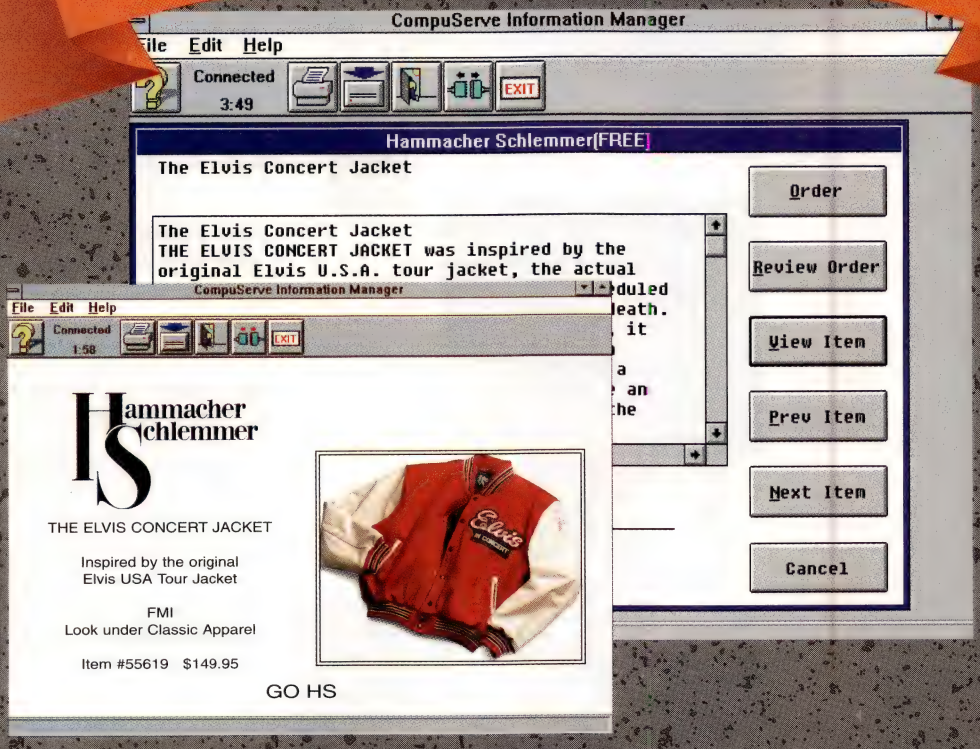
And leave off the last "S"... That's the "S" for *savings*.

GUIDE TO SHOPPING ON THE COMPUSERVE INFORMATION SERVICE

THE ELECTRONIC M·A·L·L®

MAY 1994

THE NEW MALL GRAND OPENING



Shopping Just Got Easier and We're Celebrating!

Win a $1,000 Online Shopping Spree or

Exciting Prizes in the New Mall's "Mystery Door" Contest! See Page 5

FREE SHOPPING 24 HOURS A DAY, 365 DAYS A YEAR

Dear Mall Shopper:

This month we're celebrating the New Mall's Grand Opening! Just by visiting the New Mall and taking our online shopping survey, you could win a $1,000 shopping spree or one of the terrific "Mystery Door" prizes. There's a whole new look to The Mall and shopping has never been easier. See Page 5 for details.

The Mall's Spring Gift Guide is a great place to find gift ideas for Mother's Day, Father's Day, spring birthdays, graduations, weddings and more! (GO SGG) See Page 10.

Welcome this month to three new Mall stores. Absolut Vodka (GO ABSOLUT), Detroit Free Press (GO DETROIT) and Lens Express (GO LENS). As always, you can shop these stores — and any Mall store — connect-free, 24 hours a day.

See you online!

Keith Arnold

Keith Arnold
Electronic Mall Manager

Play with danger with the ATARI Jaguar!

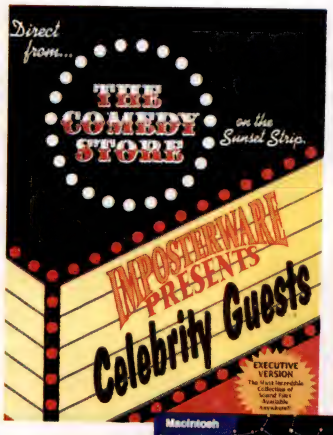
There's nothing like the ATARI Jaguar for fun on the edge! The first and only 64-bit, interactive multimedia system. Five processors, 55 MIPS — up to 100 times faster than 16-bit systems.

SEARS SHOP AT HOME. GO SR
ATARI JAGUAR $249.99

Get the *big* picture and a $100 rebate!

The new 8mm Sharp VIEWCAM™ with 3″ color LCD view screen and 270° variable angle recording lets everyone see the shot and enjoy instant playback with sound. **Extra battery and $100 manufacturer's rebate!** Model #VLE3OU.

Z-BEST ELECTRONICS & APPLIANCE. GO ZBEST
SHARP VIEWCAM $842 ($742 WITH REBATE)



Make your PC come alive with *Celebrity Guests.*

Have fun with impersonations of your favorite celebrities — Cagney, Crystal, Karloff, Cossell and more. Edit sounds and assign voices to *Windows* events and screen savers. Requires *Windows 3.0* or higher and sound card.

MICROWAREHOUSE. GO MCW
***CELEBRITY GUESTS, VOL. 1* $29.95**

Rack up points with *Crystal Caliburn Pinball.*

Get all the advanced features of the best pinball machines — nudge and tilt, battle sounds, voices, flashing bumpers, 3-D ramps, and more. 256 colors. For color Macs with 13″ or larger monitors.

MACWAREHOUSE. GO MW
***CRYSTAL CALIBURN PINBALL* $35.95**

Add sound to your PC with the *Sound Machine* kit from Dalco.

The *Sound Machine* sound kit features a SoundBlaster and AdLib-compatible sound card. Includes two high performance speakers, ergonomic joystick and software for VOXKIT Voice Utilities, Talking Parrot, Jukebox for *Windows 3.1*, games, and more. For IBM and compatibles.

DALCO COMPUTER ELECTRONICS. GO DA
***SOUND MACHINE* SOUND KIT $109.50**

Comparison shop and save on all your PC needs with PC Catalog!

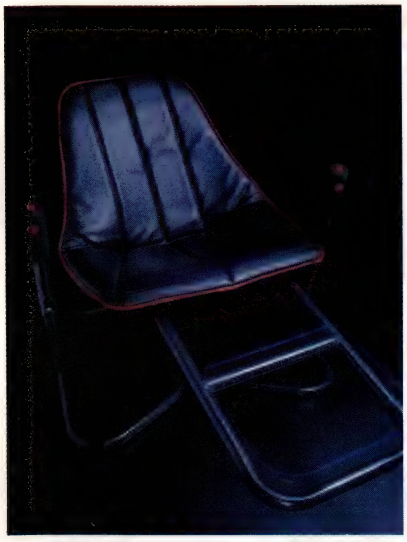
Tired of spending hours pricing computer products? Relax. Review over 2,000 PC products listed for sale by 170 direct vendors. You'll find products like *Game Blaster* software, which enables you to play all of your favorite TV games on your TV set! Comparison shop the easy way with PC Catalog.

PC CATALOG. GO PCA

Save 41% and win big with *Computer Gaming World*!

Get the exclusive inside secrets for winning your favorite computer games with *Computer Gaming World* from Ziff Davis Publishing — America's #1 computer game magazine. Enjoy leading-edge reviews, coverage of new interactive gaming environments, tips on online gaming and more.

***COMPUTER GAMING WORLD*. GO ZD**
NEWSSTAND PRICE $47.40
INTRODUCTORY OFFER: 12 ISSUES/$27.94



For ultimate excitement, play this Video Game Chair.

Sit back and relax (we dare you!) and let your body movements control the speed and direction of the game in this amazing chair. The chair acts like a joystick with a full range of motion. Hand controls for firing. For Nintendo® or Sega™ Genesis™. 24″ H x 24″ W x 38″ L. 26 lbs.

HAMMACHER SCHLEMMER. GO HS
VIDEO GAME CHAIR $279.95

Save on *Announcements 2.0 for Windows* from Parson's Technology.

With *Announcements 2.0 for Windows* you can create attractive cards, posters, banners and letterhead quickly and easily. Get your message across in style. International delivery available.

PARSONS TECHNOLOGY. GO PA
ANNOUNCEMENTS FOR WINDOWS 2.0
NOW ONLY $19

Get 8 CDs for the price of 1 from BMG Music Service!

Here's a wonderful way to build your CD collection at incredible savings. Join the BMG Music Service and take 4 **free** CDs now. Buy 1 more selection at regular Club prices and get 3 more CDs **free!** A saving of over $100 and **nothing more to buy, ever!**

BMG MUSIC SERVICE. GO CD/GO BMG

Find great entertainment on the run with Books on Tape.

No matter how busy you are, you can enjoy best-selling books wherever you go. Commuting, exercising, or just relaxing, you can choose from nearly 3,000 full-length best-sellers on cassette for rent. Try the $5 introductory offer and order your **free** color brochure.

BOOKS ON TAPE. GO BOT

Find the latest movies on laser disc at The Laser's Edge.

If you're looking for the hottest movie hits on laser disc, look no further. The Laser's Edge has all the most recent releases: *Demolition Man*, *What's Love Got To Do With It*, *Joy Luck Club* and thousands more! Browse online for a complete listing.

THE LASER'S EDGE. GO LE

INTERNATIONAL DELIVERY AVAILABLE

Listen to an instant classic — Willie Nelson's *Moonlight Becomes You.*

Not since the multi-platinum *Stardust* has an album captured the quintessential Willie Nelson. Now he's created another album to be remembered always. Price includes shipping and handling in the U.S. International delivery available.

JUSTICE RECORDS. GO JR
WILLIE NELSON'S *MOONLIGHT BECOMES YOU*
COMPACT DISC $15
CASSETTE $10

simulated TV picture

Save $700 on this sleek Toshiba color TV with surround sound!

This Toshiba 32″ tabletop color TV features front surround sound for theatre-like presence. With two powerful speakers; pre-programmed, 42-key universal remote; and 181-channel, cable-ready tuner. Savings for non-members, too! Model #CF32C40.

SHOPPERS ADVANTAGE CLUB. GO SAC
TOSHIBA 32″ COLOR TV
LIST PRICE $1,499.95
MEMBER'S LOW PRICE $799

THE NEW MALL GRAND OPENING

Win a $1,000 Shopping Spree at the New Mall!

Welcome to the Grand Opening of the new, improved Electronic Mall! Now with *CompuServe Information Manager* or *WinCIM*, you can stop in at most Mall stores and browse product descriptions, view GIF (Graphics Interchange Format) images and place orders — all from the same screen! You can even store your name and credit card information to save time.

To celebrate the opening of the New Mall, we're giving away a $1,000 online shopping spree. For your chance to win, just visit the New Mall and complete an Online Shopper's Survey. You'll receive a $5 CompuServe connect-time credit and be entered in a random drawing for the shopping spree. For your chance to win, GO MALL. You must have *CIM* or *WinCIM* software to access the New Mall (GO ORDER).

Win Exciting Prizes in the New Mall's "Mystery Door" Contest!

Step into the New Mall and you'll find three "Mystery Doors." Behind each one is a GIF graphic image and a description. You can view each prize and register for the one you'd most like to win. Your name will be entered in a random drawing for the prize you choose. Enter today! No purchase is necessary. Complete details online. GO MALL

Star Micronics NR15 Printer

A great performer! Features 240 characters/second draft printing speed and superb near letter-quality. Wide carriage. Retail value, $500.

FROM PC PUBLICATIONS. GO PCB

Collection of the World's Finest Foods

Includes Italian Parmegiano Reggiano, Norwegian Smoked Salmon, Russian Osetra Caviar, New England Smoked Boneless Ham, Chitarra Pasta, Panettone, Darjeeling Tea. Retail value, $125.

FROM ADVENTURES IN FOOD. GO AIF

"The King's" Jacket

The limited edition, exact-reproduction Elvis World Tour Jacket, made for the King's 1977 musical tour. A treasure! Retail value, $149.95.

FROM HAMMACHER SCHLEMMER. GO HS

THE ELECTRONIC MALL/ QUICK REFERENCE CHART

Use this handy table when placing your order.

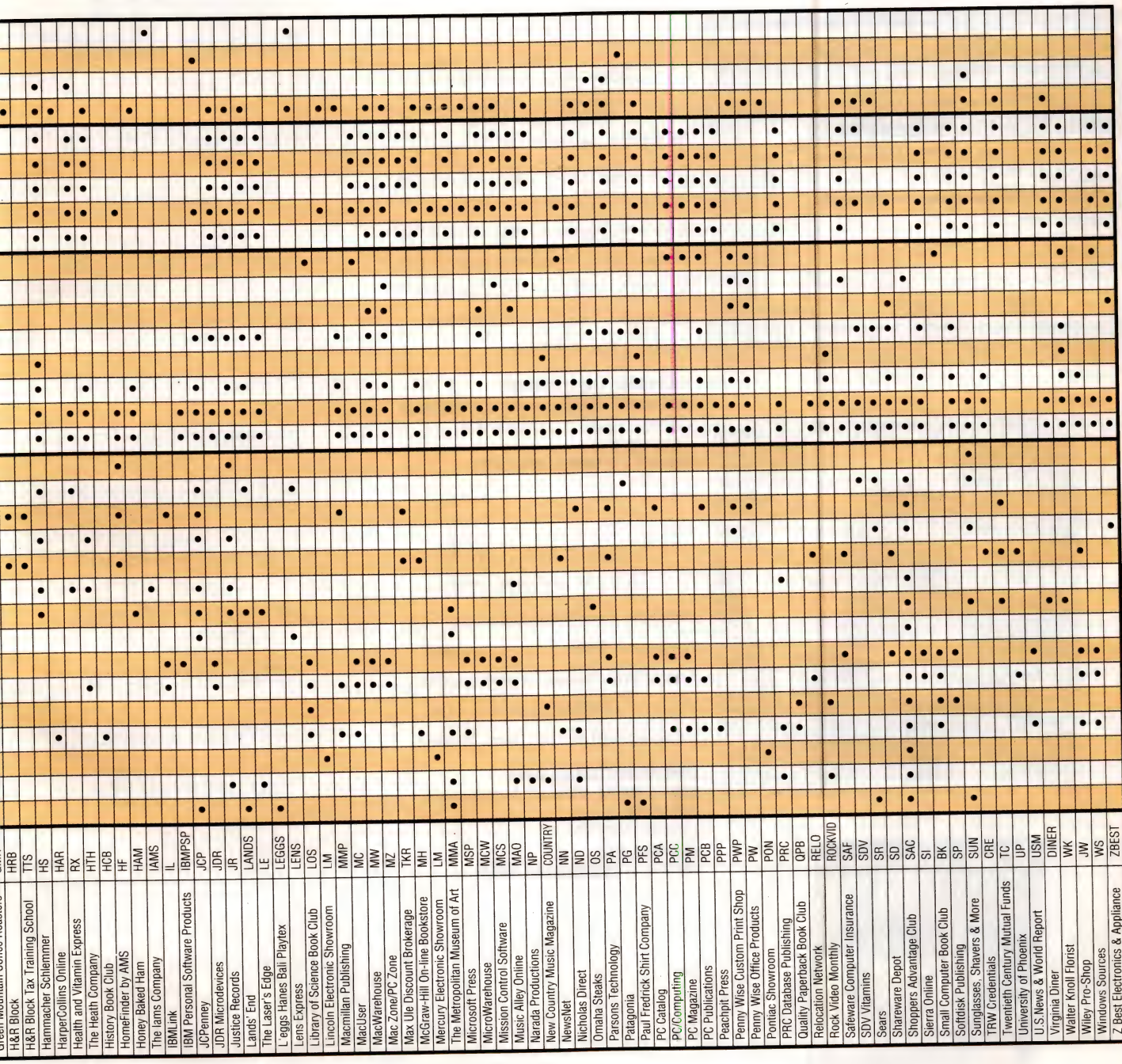
Merchant	Go Code	DEPARTMENTS																					PAYMENT OPTIONS									SHIPS TO					CATALOG			
		Apparel / Department Stores	Arts / Music / Video	Auto / Boat / RV	Books / Periodicals	Clubs / Memberships	Computer Hardware / Supplies	Computer Software	Cosmetics / Jewelry	Gifts / Flowers / Gourmet Foods	Hobbies / Toys / Pets	Investments / Finance / Real Estate	Merchandise / Electronics	Office Supplies / Business Services	Sports / Fitness / Health	Travel / Vacations	VISA	MasterCard	American Express	Diners Club	Discover Card	COD	Cash, Check, Money Order	Direct Bill	Australia/New Zealand	Canada	Europe	Japan	Other International	Free Print Catalog	Downloadable Catalog	Cost of Catalog Credited Toward Purchase	New Merchant
800-Flowers & 800-Gifthouse	FGH									•						•	•	•	•	•	•			•	•	•	•	•	•				
Absolut Vodka	ABSOLUT							•								•	•	•	•	•	•												•
Adventures In Food	AIF									•						•	•	•	•	•	•							•					
Air France	AF									•						•	•	•	•	•	•								•				
Alaska Peddler	AK									•						•	•	•	•	•	•												
Americana Clothing	AC	•								•						•	•	•	•	•	•			•	•	•	•	•	•				
Airline Services Unlimited	ASU									•						•	•	•	•	•	•			•	•	•	•	•	•				
AT&T Online Store	DP															•	•	•	•	•	•								•				
Austad's	AU	•														•	•	•	•	•	•												
Automobile Information Center	AI															•	•	•	•	•	•			•	•	•	•	•	•				
AutoQuot-R	AQ			•												•	•	•	•	•	•			•	•	•	•	•	•				
AutoVantage Online	ATV			•												•	•	•	•	•	•			•	•	•	•	•	•				
BBC Magazine	BBCM		•													•	•	•															
BMG Compact Disc Club(GO BMG)	CD		•			•																											
Book-Of-The-Month Clubs	BOMC				•	•											•	•					•										
Books On Tape	BOT		•		•												•	•															
Bose Express Music	BEM		•			•											•	•	•														
Breton Harbor Baskets and Gifts	BH				•				•	•	•						•	•	•		•		•		•	•	•	•	•	•			
Broderbund Software	BB							•									•	•	•						•	•	•	•	•				
Brooks Brothers	BR	•								•					•		•	•	•						•	•	•	•	•				
Business Incorporating Guide	INC											•		•			•	•	•	•					•	•	•	•	•	•			
CheckFree Corporation	CF							•				•					•	•	•				•		•	•	•	•	•				
The Chef's Catalog	CC									•							•	•	•											•			
Children's Book-Of-The-Month Club	CCB				•								•				•	•			•												
CitiTronics Memory	CTR						•										•	•	•						•	•	•	•	•	•			
Coffee Anyone ???	COF									•							•	•															
Colonel Video & Audio	CVA		•														•	•	•	•	•		•		•	•	•	•	•				
Columbia House	FREECD		•		•								•				•	•	•	•	•									•			
The Company Corporation	CORP																							•									
CompuBooks	CBK			•			•					•		•			•	•					•		•	•	•	•	•	•			
Compu-Cruise by Rosenbluth	CRUISE																•	•	•	•	•				•	•	•	•	•	•	•		
CompuServe Store	ORDER			•			•									•	•	•	•	•													
CompuServe Visa Store	CARD																•	•															
Computer Express	EXPRESS			•			•					•													•	•	•	•	•				
Computer Shopper	CS									•							•	•			•		•		•	•	•	•	•		•		
Concord Direct	CA	•	•														•	•						•									
Contact Lens Supply	CL			•													•	•	•	•	•		•		•	•	•	•	•	•	•		
Continental Insurancenter	CIC																•	•															
Critics' Choice Video	CCV		•														•	•															
Crutchfield Electronics	CFD		•														•	•	•		•												
Dalco Computer Electronics	DA																•	•	•	•	•		•										
Data Based Advisor	DB																•	•			•				•	•	•	•	•				
Detroit Free Press	DETROIT																•	•	•														
Dial-A-Mattress	BEDS																																
Digital's PC Store	DD																•	•	•	•	•		•		•	•	•	•	•				
Direct Micro	DM																																
Dreyfus Corporation	DR																•	•			•				•	•	•	•	•				
Entrepreneur Group	ENT																																
Epic MegaGames	EP																•	•	•		•												
The Escort Store	CMW																•	•							•	•	•	•	•		•		
Exec/Direct	PWM																																
Executive Stamper	EX																																
Express America Mortgage	EAM																•	•	•	•	•												
Figi's Gifts	FG																																
Florida Fruit Shippers	FFS																																
Flower Stop	FS																•	•	•		•				•	•							
Ford Electronic Showroom	FORD																																
Ford Motor Company	FMC	•															•	•							•								
Fortune Book Club	FCB																																

FREE SHOPPING 24 HOURS A DAY, 365 DAYS A YEAR

Shipping Information

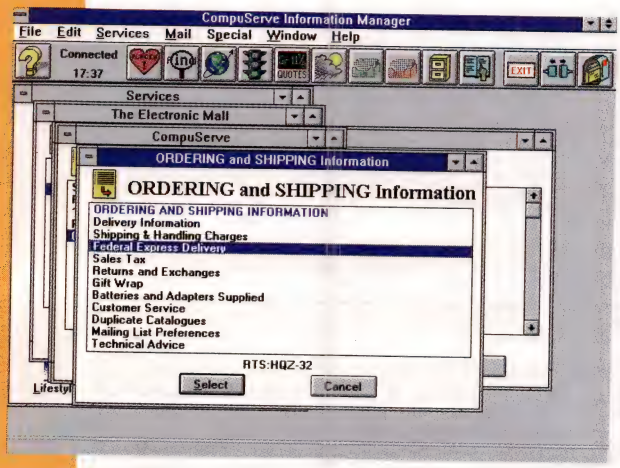
Shipping destinations and methods differ from store to store. Many stores will ship virtually anywhere in the world. Others ship to the U.S. and Canada, or to the U.S. only.

Shipping options differ, too. In addition to standard UPS ground, many merchants also offer one, two or three-day rush delivery for an added fee. In some cases, the price online includes shipping and handling anywhere in the continental U.S. Use the handy guide on these two pages as a quick reference for each store's shipping policies.



Shopping The Electronic Mall Has Never Been Easier!

The Mall has opened its doors to a whole new look — a *Windows*-oriented look that makes it easier, faster and more fun to shop electronically. You'll find everything on one convenient screen. With the touch of a finger you can browse product descriptions, flip back and forth between products, view full-color GIF graphics, and order right on the spot. You can even store your name, address and credit card information in the database, so you don't have to type it in each time. (Requires *Cim* or *WinCIM* software.) Take a look at the New Mall today! GO MALL



Upgrade to *CIM* or *WinCIM* for next to nothing!

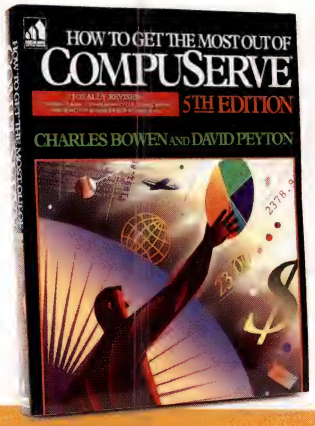
With pull-down menus and dialogue boxes to help you access favorite services quickly — including the New Mall. Right now, you can switch to *WinCIM* or *CompuServe Information Manager* (*CIM*) and receive your cost back in a connect-time credit — making it virtually **free**! For DOS, Mac and Windows.

COMPUSERVE STORE. GO ORDER
***COMPUSERVE INFORMATION MANAGER* SOFTWARE**
CURRENT MEMBERS: LIST PRICE $25
SALE PRICE $15
INCLUDES $15 CONNECT-TIME CREDIT!

Save $6 on *How to Get the Most Out of CompuServe!*

New Fifth Edition! This informative book has become the bible for learning about CompuServe. Includes step-by-step discussion of CompuServe services. Completely updated to cover recent additions.

COMPUSERVE STORE. GO ORDER
HOW TO GET THE MOST OUT OF COMPUSERVE, 5TH EDITION
REGULAR PRICE $25
SALE PRICE $19
INCLUDES $15 CONNECT-TIME CREDIT!

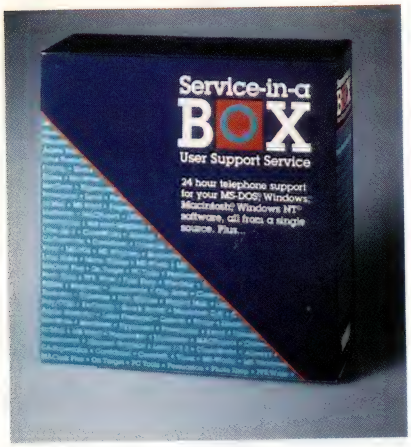


THE COMPUSERVE COMMITMENT TO ELECTRONIC SHOPPING

As a CompuServe shopper, you are on the leading edge, shopping today the way the rest of the world will shop in years to come — electronically! We are continually striving to expand our roster of stores to provide you with the best products, services and information available. We welcome your comments and suggestions.

GO MALLMANAGER

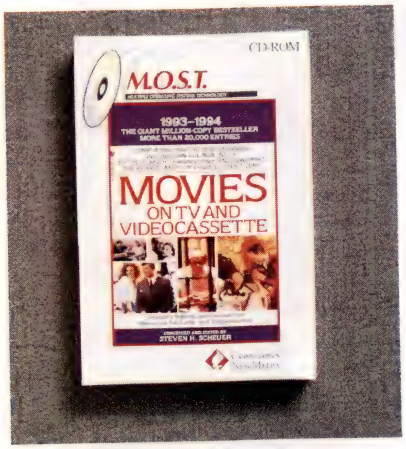
SHOPPERS GUIDE



Find *all* your software answers.

Now you can get answers to *all* your software application questions from one source. Digital's *Service-in-a-BOX* provides one year of unlimited, toll-free telephone support, 24 hours a day, seven days a week for MS-DOS, *Windows* and Macintosh systems software, plus over 400 popular PC applications. Details online.

DIGITAL'S PC STORE. GO DD
***SERVICE-IN-A-BOX* $99/YR**



Consult a movie index on CD-ROM.

Here's your four-star guide to the best and worst movies on TV and video. From the latest box-office smashes to all-time classics — over 19,000 complete ratings and reviews! For IBM and Macintosh. Requires CD-ROM drive.

COMPUTER EXPRESS. GO EXPRESS
***MOVIES ON TV AND VIDEOCASSETTE* CD-ROM**
REGULAR PRICE $39.95
SALE PRICE $30

The BBS Construction Kit

If you thought starting your own bulletin board system (BBS) was too complicated, this book/disk set can get you up and running in *one* day! *The BBS Construction Kit* discusses all aspects of running a BBS: what hardware to buy, how to set everything up, and how to keep it running. Even includes 3.5 disk containing *all software needed.*

WILEY PRO-SHOP. GO JW
***THE BBS CONSTRUCTION KIT* $27.95**

Get up to $120 worth of books for only $3 at the Small Computer Book Club.

Learn how to create dazzling artwork and get the best sound and music out of your PC with *Welcome to PC Sound, Music and MIDI*; *Windows Graphics FunPack*; and *Windows Sound FunPack*. Receive all three for only $3 when you join the Small Computer Book Club. Complete club details online.

SMALL COMPUTER BOOK CLUB. GO BK

Save $10 on the Rolodex pocket planner.

The most compact personal "phone book" you've seen! Electronic data pack holds 500 names, addresses and phone numbers in a pocket-size case. Includes replaceable yearly week-at-a-view appointment pad. Stock No. ROL-RPP10.

PENNY WISE OFFICE PRODUCTS. GO PW
ROLODEX POCKET PLANNER
REGULAR PRICE $39.99
SALE PRICE $29.99

INTERNATIONAL DELIVERY AVAILABLE

Shop The Mall's Spring Gift Guide for great gift ideas!

The Electronic Mall makes your spring gift-giving a breeze. You can shop The Mall by category to find terrific gift ideas for Mother's Day (May 8), Father's Day (June 19), spring birthdays, graduations and weddings. You'll also find a special graphics showcase featuring GIF images of the gift selections. So, make your spring shopping easier than ever — browse the gift guide and place your order.

SPRING GIFT GUIDE. GO SGG

Get set for summer with Supplex Swim Trunks.

Dad will love these lightweight, quick-drying 100% Supplex nylon swim trunks. They feature a comfortable drawstring waist, two on-seam side pockets and nylon mesh liner. Nine colors, two lengths.

LANDS' END. GO LANDS
NYLON SWIM TRUNKS
REGULAR LENGTH $22.50
VOLLEY LENGTH $25

Keep Dad cool with this 100% Cotton Chambray Shirt.

Add a casual touch to Dad's warm-weather wardrobe with this 100% cotton chambray broadcloth shirt. Features button-through sleeve plackets, generous fit and extra-long shirt tails. Solid blue.

PAUL FREDRICK SHIRT COMPANY. GO PFS
100% COTTON CHAMBRAY SHIRT $32
CUFF MONOGRAM $5

Give Dad a fashion statement with this Matisse Scroll Tie.

Anything but "just another tie," this stunning scroll pattern was inspired by elements in the composition *Seville Still Life II* by Henri Matisse. Silk twill in wine/blue/gold. International delivery.

THE METROPOLITAN MUSEUM OF ART.
GO MMA
MATISSE SCROLL TIE $35

Give a flowering plant or herb basket.

We've taken some of the most popular varieties from the garden and planted them in their own pots for the perfect natural gift — one they'll enjoy all year 'round. In gardenia, hibiscus, or herb garden (with four fresh potted herbs), in a handsome wicker basket. Delivered second-day air.

800-FLOWERS & 800-GIFTHOUSE. GO FGH
GARDENIA, HIBISCUS OR HERB BASKET $29.99

INTERNATIONAL DELIVERY AVAILABLE

NEW MERCHANT

Discover the delights of the *Absolut Museum* from your PC.

Explore the brilliance of the *Absolut Museum* collection. This 3-D program contains over 200 paintings, photographs and fashion designs that made Absolut Vodka the #1 imported vodka in the country. Download a **free** sample of the *Absolute Museum* or view GIF files from this award-winning advertising campaign. Net proceeds go to AmFAR, the American Foundation for AIDS Research.

ABSOLUT VODKA. GO ABSOLUT
***ABSOLUT MUSEUM* $29.95**

Enjoy music 'to go' with the Panasonic Personal CD Player!

Take to the outdoors this summer with crisp, clear digital sound to keep you company wherever you go. This sleek Panasonic Personal CD Player plays up to 24 tracks in any order you choose. Features XBS® Extra Bass System. Car adaptor and power cord included. In Electronics/Audio Shop.

JCPENNEY. GO JCP
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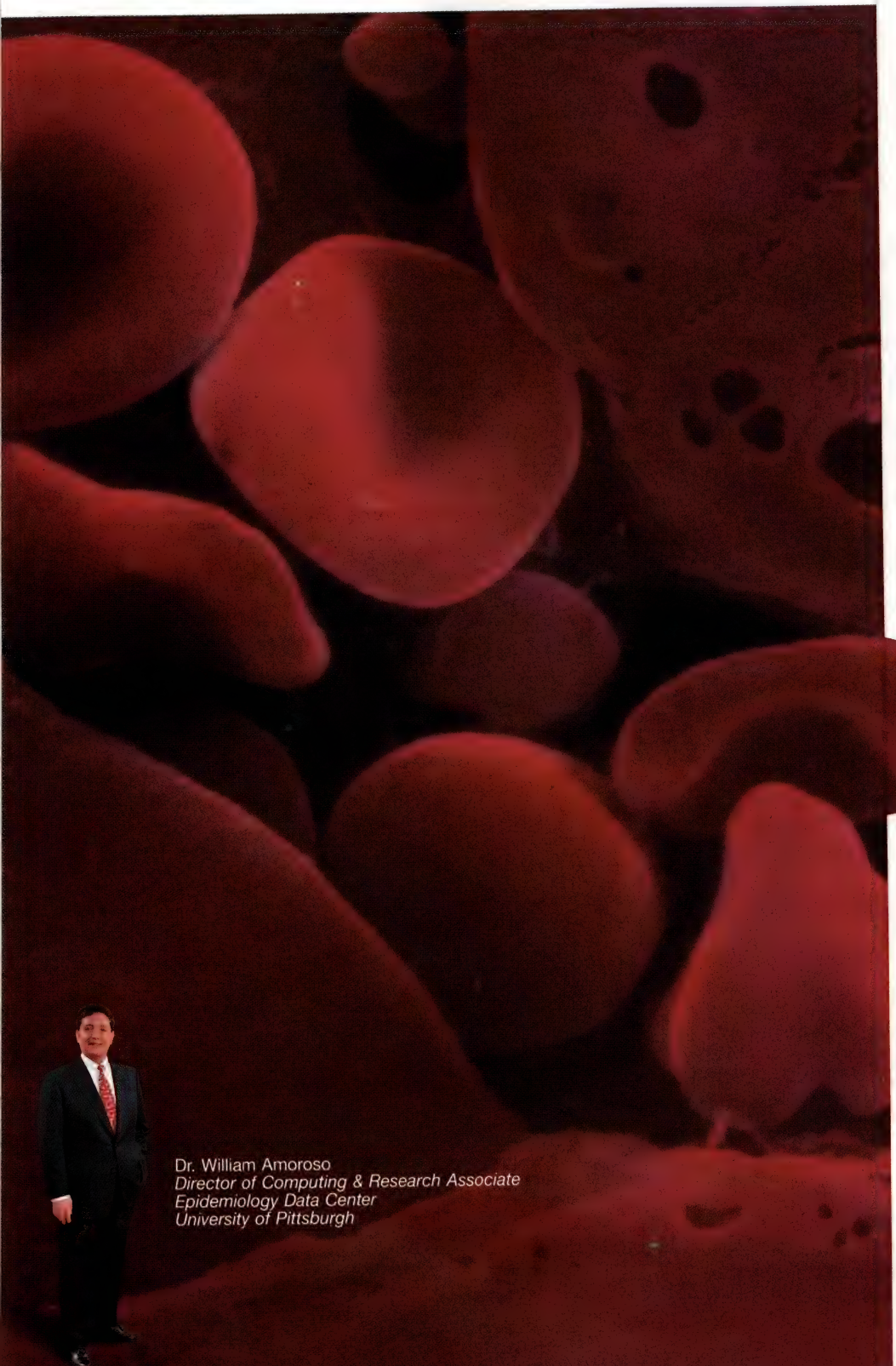

Dr. William Amoroso
Director of Computing & Research Associate
Epidemiology Data Center
University of Pittsburgh

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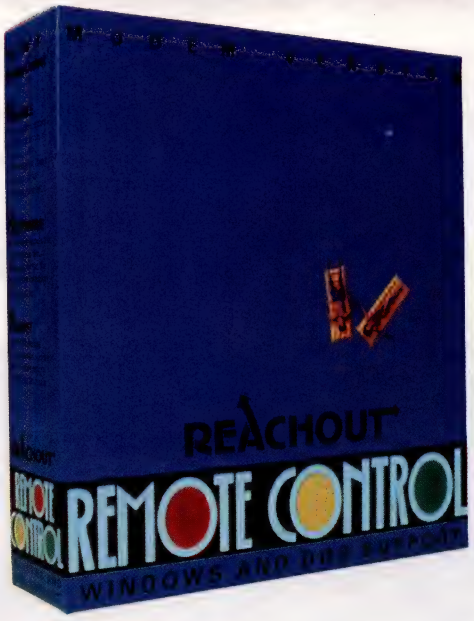

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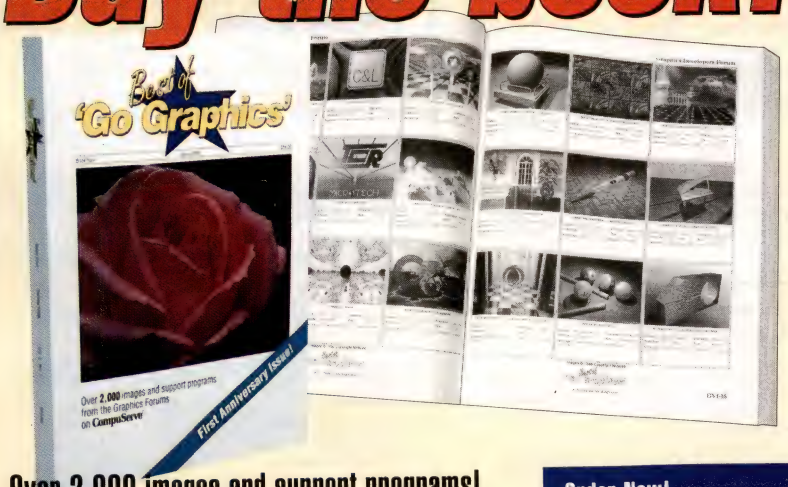

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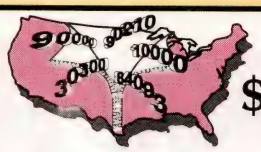

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BIZFILE	Page 28	GO BIZFILE
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Buzzwords International	Page 56	CIS 70751,3056
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CD Connection	Page 56	408/730-9015
CD Light	Page 56	801/943-0162
CDT	Page 53	800/USE-1032
Company Corporation	Page 33	GO CORP
ComTrad	Page 25	800/992-2966
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University of Phoenix	Page 46	GO UP
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with Charles Bowen

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Chuck McAllister
Kezar Falls, Maine

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Where can I find monthly or annual U.S. inflation indexes? The ones I need to find are the Producer Price Index, the Consumer Price Index and gross national product data.

Brian Hunley
Troy, Ohio

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10 Index of Leading Indicators and Index of Industrial Production
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16 Consumer Installment Credit Outstanding
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See if Options 9 and 15 fill the bill.

Is there a way to get access to currency prices through CompuServe?

Peter Rosenfeldt
Jukskei Park, South Africa

Perhaps the best source for exchange rates is the Global Report (GO GLOREP), Citibank's comprehensive worldwide financial news and information service. Alas, it carries a hefty surcharge—$30 an hour during evening and weekend hours, $60 during prime time—so most people aren't inclined to explore it leisurely. Fortunately, the Investors' Forum (GO INVFORUM) has a tutorial file called GLORAT.TUT in Library 11, "Using INVFORUM/CIS," which gives a step-by-step guide to the feature before you access it.

Also, some exchange rates can be looked up in the stocks databases if you have the ticker symbols. To get the tickers, GO INDICATORS, and from the subsequent menu, select the Exchange Rates option and choose the desired region from the next menu. The system begins listing symbols and CUSIPS, like this:

Ticker	Cusip	Name and Description
XRAS	00000510	XCHG RATE AUSTRIAN SCHILLING—US$ PER 100 Data from 8/20/84 to 1/27/94
XIRE	00000511	XCHG RATE IRISH PUNT —US$ PER 100 Data from 5/09/88 to 1/27/94

Some of these currencies are listed in the current day's stock database. You can GO BASICQUOTES and type the ticker symbol when prompted for "Issue." Not all the currency exchange data is provided in Basic Quotes; however, many more of the rates are in the system's larger, historical database (GO PRICES). There you can check these on a day-after basis.

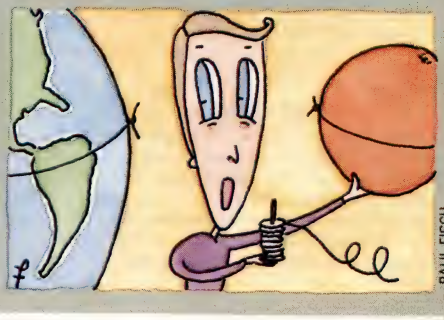
Charles Bowen is a contributing editor of CompuServe Magazine *and co-author of the* How to Get the Most Out of CompuServe *book series and author of* CompuServe from A to Z *from Random House.*

Send questions to CompuServe User ID number 70007,411. If your question is answered in this column, we'll apply a $25 connect credit to your CompuServe account.

Mensa® Puzzler

This month's puzzle was submitted by CompuServe member Pascal Hua. You'll find the answer in the Mensa Forum's News Flash (GO MENSA).

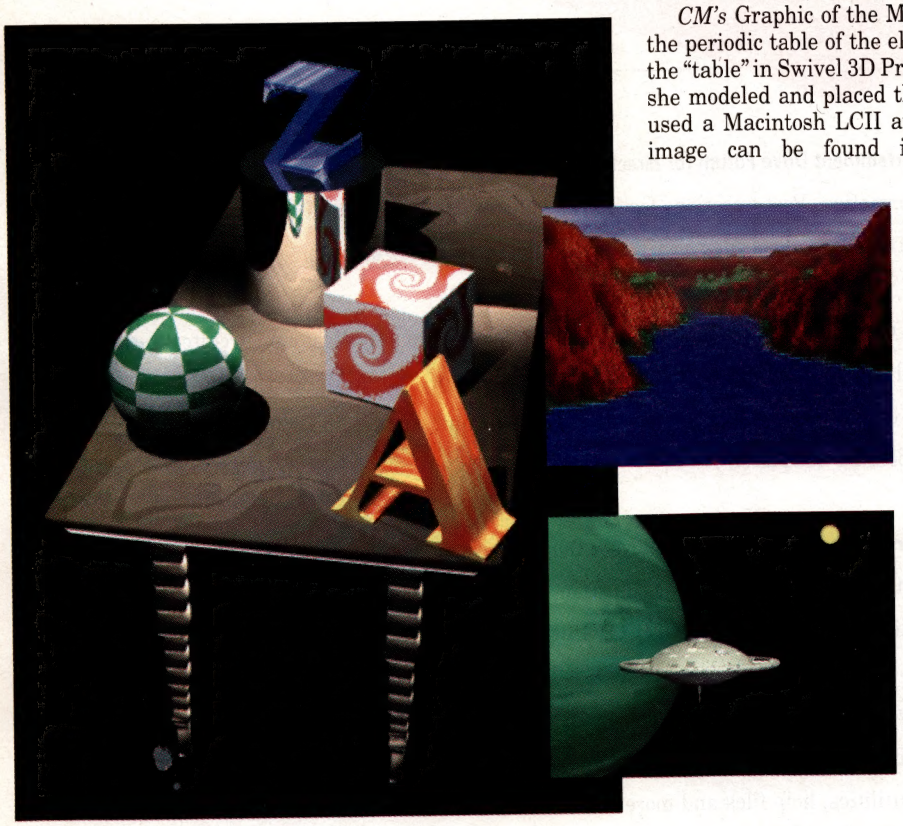
I have pulled a string around a big orange and one around the earth's equator. Today I have decided to elevate each string exactly one meter up from the surface of the orange and the earth. Naturally, I have to add some string to complete the circle. Which string will I have to add the most to—the one around the orange or the one around the earth?



PAUL FISCH

Do you have a Puzzler that you'd like to share with *CM* readers? Send your entry of no more than five brief puzzles (with answers) to: Puzzlers, *CompuServe Magazine*, P.O. Box 20212, Columbus, OH 43220. Include your full name, address, daytime telephone number and CompuServe User ID number. Puzzles that are not sensitive to character positioning may be sent by CompuServe Mail to User ID number 76004,3302. If your puzzle is used here, we'll credit $35 to your CompuServe account.

Graphic of the Month



CM's Graphic of the Month is a ray-traced artistic interpretation of the periodic table of the elements by Emily Weadock. Weadock modeled the "table" in Swivel 3D Professional and imported it into Infini-D, where she modeled and placed the objects and applied her own surfaces. She used a Macintosh LCII and a Daystar 33MHz 68030 accelerator. The image can be found in the Graphics Developers Forum (GO GRAPHDEV), Library 1, "New Images," as file ELEMNT.GIF (46,336 bytes). The image resolution is 454 by 560 pixels at 256 colors. Weadock makes a living as an abstract artist. "My husband thought I might enjoy computer art and bought me an array of art-related software," she says. "I am seriously hooked."

This month's runners-up are "River in a Gorge" by Ronald J. Chapman, found in the Graphics Plus Forum (GO GRAPHPLUS), Library 16, "Fractals/Raytracing," SCAPE8.JPG (112,000 bytes); and "Space Station" by Brad Rushing, found in the MicroStation Forum (GO MSTATION), Library 1, "MicroStation User," SPACE.JPG (49,504 bytes).

If you have a favorite image on CompuServe, consider nominating it as a Graphic of the Month. Provide the file name and identify the forum and library where the image is stored (do not send the files themselves) and send the information by CompuServe Mail to User ID number 76004,716. If the image you nominate is selected as the Graphic of the Month, you and the image uploader/creator will receive a $25 CompuServe account credit. Image uploaders/creators are permitted to nominate themselves, but only one $25 credit is applied to each member.

MEMBER ESSAY

Scoops from the Not-So-Locals

As a free-lance writer, I'm always looking for story ideas. Many of my ideas come from local newspapers, so when I started expanding my writing business, I realized I needed to expand the range of my reading—but one person can read only so much and local papers don't cover nearly all the stories. I decided I needed my own network of readers.

Enter CompuServe. I started by placing a small ad in the Classifieds offering people money for reading the newspapers they already read. I sent guidelines of the subjects I enjoy writing about to interested parties, and offered them a percentage of the payment for articles I wrote that stemmed from their ideas. I'm in regular contact with my "Reader Net" via e-mail, including announcing occasional contests.

Often, I follow up a hot idea from my network with some expert advice via ProfNet, which turns up top-notch experts on almost any subject. I can't imagine being a free-lance writer without CompuServe.

Brad Swift
Greensboro, North Carolina

Compete for $50 worth of connect-time credits in *CompuServe Magazine*'s monthly Member Essay contest. Write a 200-word essay describing an original way you've used the Information Service and send it to CompuServe User ID number 76004,3302. Include your full name and address.

TIPS OF THE MONTH

When staying in hotels on business trips, sending a fax via my fax modem usually racks up a charge of $3 to $4 for one page or less. This is obviously based on the various surcharges that a hotel adds to telephone charges. If I send faxes of similar length via CompuServe (GO MAILHELP and choose Option 5, "Sending and Receiving Messages," for details), I incur only a charge of 75 cents to $1.

Fred Cooley
Holly Springs, North Carolina

Historical Price Quotes (GO PRICES) can be converted to spreadsheet format by importing the ASCII text file into a spreadsheet program such as Quattro Pro for Windows and selecting parse. Selecting parse separates each column into separate cells, allowing for analysis and graphing of the price data. The same technique can be used for Basic Price Quotes (GO BASICQUOTES). However, you'll have to add a column (after importing into the spreadsheet) for the price date.

Richard Ramon
Brooklyn, New York

Have a good tip about using the Information Service that you'd like to share with other CompuServe members? Send it to CompuServe User ID number 76004,3302 and type "Tip of the Month Contest" on the subject line. If your tip is published in this column, we'll apply a $25 connect-time credit to your CompuServe account.

UPDATE

COURTESY OF THE WILLIAM SECORD GALLERY, INC., NEW YORK

Forum Offers Animal Appeal

Download fine canine art from the New York-based William Secord Gallery in Time Warner's Dogs & Cats Forum. The images, such as John Emms' "Best Friends" (above), are available in the forum's Library 17, "Art Gallery." Forum sections cover dog and cat behavior, breeding and more. GO TWPETS

COURTESY OF WISCONSIN STATE HISTORICAL SOCIETY

Cross a Bridge to Another Time

Take a visual trip through U.S. history with Wisconsin State Historical Society images in the Graphics Gallery Forum's Library 17, "Wisconsin Historical Society." View West Wisconsin Railway Locomotive No. 13 crossing over the Black River in the 1880s (above), women working on a Nash Motors assembly line during World War I and many other historical images. Also, ask questions of Historical Society staff members in the corresponding message section. GO GALLERY

Visit the Entertainment Drive Forum for direct contact with entertainment industry professionals and network information. Post questions for Hollywood stars and interact with columnists in the message sections, download files on Hollywood-related activities and more. GO EDRIVE

Get advice on designing, building or restoring a home in the Homing Instinct Forum. Architect and author John Connell and other professionals from the Yestermorrow Design/Build School in Vermont answer your questions on topics such as tools, kitchens and baths, remodeling, interior design and landscapes. GO HOMING

During May, first-time users of Computer Buyer's Guide receive up to a $5 rebate on surcharges incurred during their first session. Retrieve specifications for more than 70,000 products, including "street" prices from direct-market vendors. GO COMPBG

Stop by the SynOptics Forum for information on the company's line of LAN hubs and LAN mangement software. SynOptics technicians provide help in the message sections. The library contains product information, utilities, help files and more. GO SYNOPTICS

Receive an expanded level of Microsoft computing information, service and support through the Microsoft Plus program, which includes a private CompuServe forum for networking with Microsoft staff members and other users. For more information, GO MSPLUS.

Makers of hardware and software can register their products electronically with CompuServe's Electronic Registration software, currently available for use in the United States and Canada. CompuServe collects the registration data and maintains a secure database, which business partners can access later for electronic retrieval. This program helps lower registration costs, improves customer data accuracy and simplifies the registration process. For more information, call 800/524-3388 and ask for representative 573.

First-time users of Health Database Plus can retrieve two articles free of transaction charges during their first session in May. Retrieve abstracts and full-text articles on almost any health-related topic including health care, disease prevention and treatment, fitness, nutrition and substance abuse. GO HLTDB

NEXT MONTH • **On Pins, Needles and Glass:** How Crafters Combine Dexterity with Serendipity • **Speaking in Platforms:** Getting Files from DOS to Mac and Back • **Windows' New Views:** Alternative Desktops • **Cash Flow:** The River Rapids of Business Prosperity • **Your Attention, Please:** Life with ADD • **Not Just Knots:** Scouting Today

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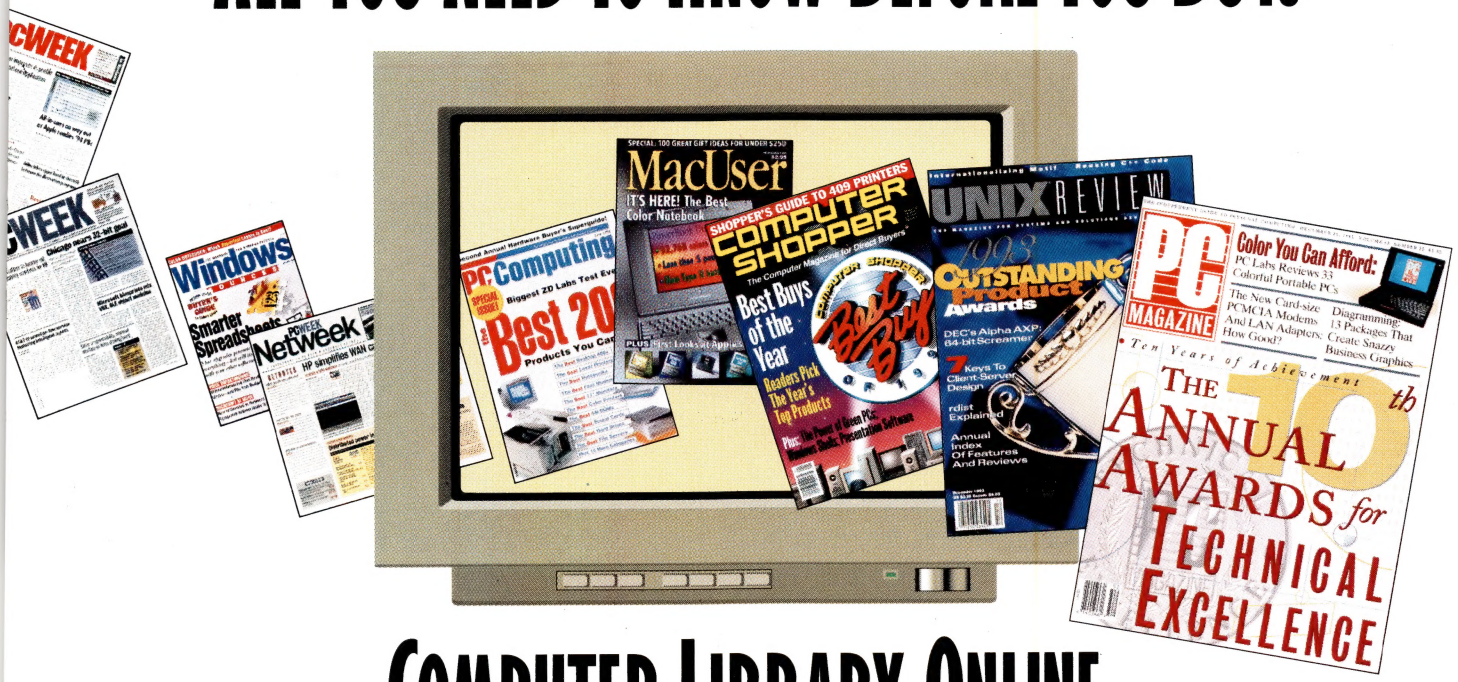

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And it's simple to access — just type GO COMPLIB from anywhere in CompuServe. Computer Library Online should be your first stop for all computer buying information. First time users: try *Computer Buyers' Guide* in May, and enjoy a $5 usage credit.

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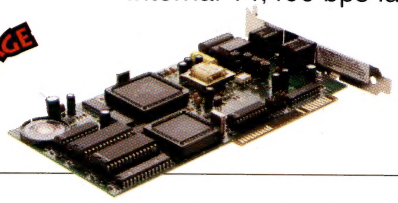

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